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ABSTRACT

THE PURPOSE OF THIS PROJECT WAS TO EXAMINE FACTORS THAT SEEM TO CONTRIBUTE TO THE VOCATIONAL SUCCESS OF A GROUP OF VISUALLY HANDICAPPED. THE POPULATION INCLUDED 939 SUBJECTS FOR WHOM TEST DATA WERE AVAILABLE; 644 WERE INTERVIEWED AND 207 WERE RETESTED ON VARIOUS STANDARDIZED MEASURES. INSTRUMENTS WERE DEVELOPED TO OBTAIN INITIAL DATA FROM SCHOOL AND AGENCY RECORDS AND CURRENT DATA FROM THE SUBJECTS THEMSELVES. THE TYPICAL SUBJECT WAS MALE, BETWEEN THE AGES OF 23 AND 42, OF AVERAGE INTELLIGENCE, LOST VISION BEFORE THE AGE OF FIVE, AND COULD NOT SEE SUFFICIENTLY TO READ LARGE PRINT. FINDINGS SHOWED A HIGH PERCENTAGE UNEMPLOYED; THOSE EMPLOYED HAD IN GENERAL AN ANNUAL INCOME BELOW THE MEDIAN FOR THE GENERAL POPULATION AND WERE ENGAGED IN A NARROW RANGE OF OCCUPATIONS. VARIABLES THAT SEEMED TO BE MOST RELATED TO VOCATIONAL SUCCESS INCLUDED I Q, SEX, OTHER DISABILITIES, TRAVEL ABILITY, AND LEVEL OF EDUCATION. EXCEPT FOR I Q, AND CERTAIN SUBTESTS OF VOCATIONAL INTEREST TESTS, RESULTS OF PERSONALITY AND VOCATIONAL APTITUDE TESTS WERE NOT HIGHLY RELATED TO VOCATIONAL SUCCESS. ADDITIONAL DATA ANALYSES AND IMPLICATIONS FOR EDUCATORS AND REHABILITATION COUNSELORS ARE DISCUSSED. (AUTHOR)

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The University of Michigan
School of Education
Ann Arbor, Michigan 48104

Final Report

A Study of the Vocational Success of Groups of the Visually Handicapped

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SIGNIFICANT FINDINGS FOR REHABILITATION WORKERS

Finding: The inaccessibility and inadequacy of school and agency records for gathering objective data concerning subjects and the services they receive.

Implication: Follow-up studies of former students and clients cannot be undertaken without adequate initial data; furthermore, program evaluation demands that information about the "process" and "product" be gathered continuously so that practices may be modified to meet the changing needs of clients.

Recommendation: Schools and agencies should review record keeping and record retention policies and practices. A system should be developed for easy retrieval of relevant background data on clients. Further, records should include information concerning objectives, techniques, and outcomes of processes employed, so that periodic review and evaluation may be undertaken.

Finding: The high rate of unemployment and underemployment among the visually handicapped.

Implication: A democratic society should accord all its members, regardless of race, creed, or disability, access to equal opportunities in employment. Unfortunately, the visually handicapped are in general deprived of equal opportunities to work in occupations commensurate with their abilities.

Recommendation: A twofold attack on the problem of job discrimination should be undertaken. Workers with the visually handicapped should expand the range of occupations open to their clients; they should aim for full employment to the level of their abilities through improved counseling and placement practices. Agencies should intensify their efforts in public relations in order to sell the abilities of their clients and reduce the effect of discrimination in all aspects of society.

Finding: The relatively high rate of movement between residential and day schools, particularly among the less successful group.

Implication: All visually handicapped children have a right to an education in the setting which best meets their needs. Some movement between residential and day schools may be advantageous toward meeting needs at a particular time.

Recommendation: The strengths of a particular program for meeting needs of the individual student should be identified through the cooperative efforts of staff members representing both types of educational programs. Such a procedure demands that there be open and free communication among educators.

Finding: The need for obtaining a full understanding of the client in order to maximize his chances of success.

Implication: Measures of intelligence, personality, vocational interest, and vocational aptitude provided a valuable source of input to be utilized during the counseling process. In addition, biographical data should also be employed in arriving at recommendations concerning appropriate job placement.

Recommendation: Schools and agencies should direct their efforts toward developing a multi-disciplinary approach and maximize the utilization of data from all resources in order to attain the ultimate objective of full employment for the visually handicapped.

ED036020

The University of Michigan
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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Final Report

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FOREWORD

Despite the number of publications on counseling that have been written during the past quarter century, there are still relatively few devoted to the blind client. The advent of a considerable amount of social research during the past 15 years has not improved this situation to any great extent. While many of us in the field of work for the blind would freely admit that counseling has a generic base and any attempt to divide it into subdisciplines according to disability would prove unwise, it is, nevertheless, true that counseling, as it is applied to the whole field of rehabilitation, takes on some unique characteristics. This premise is certainly true when applied to vocational rehabilitation services for the blind.

The following report offered an unusual opportunity for the authors to study 644 cases in a five-state area. These cases, concerning individuals who received services one to two decades ago, provided an opportunity to analyze which services were rendered and to what extent they were effective.

The findings revealed should be of interest to everyone in our field. Let me direct your attention to two of the many cogent recommendations made:

(a) the substantiation of a need for expansion of the number of job opportunities—a problem we in the Rehabilitation Services Administration have been attacking for several years.

Although conditions have improved immeasurably during the past ten years, the study graphically illustrates weaknesses and the need for concentrated effort by all whose major interest is vocational rehabilitation of the blind.

(b) the valuable ways in which biographical material can be utilized.

While the authors have not hesitated to employ sophisticated statistical techniques, they feel it imperative to indicate how thorough background knowledge of the client can and should be used by the counselor. The extent to which this has been ignored becomes obvious from their examination of sparsely documented case records.

The results of the study provide a wealth of information, not only indicating many areas requiring further investigation but giving a realistic view of current practices.

I sincerely hope the report will be given wide distribution and be used as a resource document in planning for the future.

Douglas C. MacFarland, Ph.D.

PREFACE

The closing hours of a research project bring with it mixed feelings: relief, that the work is coming to an end, at least for a while; regret, that more time was not available to do a better job; longing, to begin again in order to avoid mistakes now known so well. But deadlines approach and must be met; a door must close on one part in order that a new door may open. And so it is with this project.

The project directors are well aware of the limitations of this study and, as this phase draws to a close, see it as a beginning rather than an ending. Much remains to be done and what looked so easy three years ago is now seen in its proper perspective. We were in many ways far too ambitious for such a short term project. We see valuable data omitted because there was too much for a single report; other data not fully reported and interpreted to do the project justice because time ran out; and many questions unanswered at the moment but answerable by the application of other statistical procedures that can and will be done at a later date. Additionally, we find excitement in certain findings included in this report and see other projects spawned from its results, tentative though they are. It thus is a project which will not stop at this point in time but that must continue.

We ask our readers then to view the report as we do: an unfinished document. Even so, we hope that the findings presented here may point to new directions for helping the visually handicapped attain their rightful place in the world of work. Further, we hope that through discussions, professional meetings, and other means of communication, we may be guided by the counsel and needs of practitioners to explore additional data from this study and to propose other related projects that will ultimately help them toward improved practices in vocational rehabilitation for the visually handicapped, the common objective of researcher and practitioner.

This report then should be placed within the appropriate perspective of an interim report, meant for discussion and mulling over, so that eventually more significant and relevant studies may evolve. We hope that our readers will study the findings carefully and from them draw implications for practice that can come from more intensive consideration and thoughtful study than was possible for us within the limitations of our time schedule. We ask too that lines of communication between researcher and practitioner remain open so that we can mutually help each other to seek better ways of insuring the visually handicapped their share of equal opportunities in our American society.

G.T.S.
M.K.B.
M.S.C.

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In today's complex society, research involves the efforts of many people. The project directors are indebted to those who assisted in the conduct of this project in innumerable ways.

To our faithful research assistants who gave full measure above and beyond the call of duty, we owe a debt of gratitude that can never be repaid.

To the numerous staff members at The University of Michigan who willingly gave counsel and guidance when it was needed, we are truly grateful.

To the post-masters students in the program for preparing leadership personnel in the area of the visually handicapped, go our thanks for the hours they devoted for two years during their doctoral seminars, reviewing and evaluating various aspects of the project during its many ups and downs.

To school and agency personnel whose interest and cooperation made this study possible, we acknowledge our appreciation and gratitude.

To our subjects who gave so willingly of their time and without whom this study could not have become a reality, we can never repay in kind their sacrifices.

Finally, how can we ever thank our families, friends, and colleagues for their patience, tolerance, and understanding while we were engaged in this research project.

To all, we humbly acknowledge our gratitude and say "Thank you" from the bottom of our hearts.

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ABSTRACT

The purpose of this project was to examine factors that seem to contribute to the vocational success of a group of visually handicapped. The population included 939 subjects for whom test data were available; 644 were interviewed and 207 were retested on various standardized measures. Instruments were developed to obtain initial data from school and agency records and current data from the subjects themselves. The typical subject was male, between the ages of 23 and 42, of average intelligence, lost vision before the age of five, and could not see sufficiently to read large print.

Findings showed a high percentage unemployed; those employed had in general an annual income below the median for the general population and were engaged in a narrow range of occupations.

Variables that seemed to be most related to vocational success included I.Q., sex, other disabilities, travel ability, and level of education. Except for I.Q., and certain subtests of vocational interest tests, results of personality and vocational aptitude tests were not highly related to vocational success. Additional data analyses and implications for educators and rehabilitation counselors were discussed.

CHAPTER I

INTRODUCTION

Background Information

The past decade has witnessed a surge of interest in improving the welfare of disadvantaged groups. Efforts of state and federal government, busines and industry, and public and private social and rehabilitation agencies are being directed toward assisting all citizens to realize their full potential and to become contributing members of our democratic society. Employment in a job commensurate with one's abilities and interests becomes the objective for each individual. Certain persons, however, have difficulty in realizing this objective, often through no fault of their own. This project was concerned with identifying difficulties which one such group, the visually handicapped, encounters in attaining vocational success.

The rate of unemployment among the visually handicapped is known to be higher than among the so-called normal population. In addition, underemployment is a continuing problem. Difficulties related to realizing the objective of full employment do not seem to be regional, but rather a common phenomenon among a large segment of the visually handicapped population. If this situation is to be remedied, the reasons for it must be identified.

Previous studies of selected groups of the visually handicapped have been directed toward the influence of individual variables, such as degree of vision, age of onset, I.Q., amount and type of education, and the relationship of each to vocational success. However, studies of the interrelationship of such variables with vocational success are lacking. In addition, little has been done to relate vocational success to such social and cultural factors as the socioeconomic background of the family.

Efforts of vocational rehabilitation agencies are directed toward evaluating handicapped individuals in an attempt to identify their abilities and to help them secure jobs commensurate with their abilities; the degree to which such evaluative procedures actually contribute to a greater knowledge of the individual and to predicting his eventual vocational adjustment remains unclear. While much time, money, and energy are expended on test administration and vocational counseling, the end result of these practices has not been explored. Information on the contribution of these variables to vocational success would assist greatly in counseling and placement practices with the visually handicapped and may help to identify ways of alleviating the current status of unemployment and underemployment of this disadvantaged group.

Statement of the Problem

The purpose of this project was to study the current vocational adjustment of a selected group of visually handicapped adults who received vocational counseling on the basis of the results of a battery of tests administered during their late teens and early twenties in order to:

1. identify and evaluate the constellation of variables that seem to be related to successful or unsuccessful vocational adjustment:
    - (a) for the total group interviewed;
    - (b) for sub-groups identified as having attained varying levels of success;
2. determine the relationship of various measures of intellectual ability, personality, vocational interest, and vocational aptitude to subsequent vocational success;
3. determine through retests the reliability of certain of the above measures and to employ selected new measures that may prove useful in the future for evaluation of visually handicapped clients.

The specific predictor variables for the first objective were selected from those found relevant in previous studies and included the following:

1. personal factors: sex, age of onset, degree of vision, other disabilities, marital status, intelligence, and travel ability;
2. educational factors: amount of schooling, type of setting for schooling, degree of counseling, and amount of money spent on the subject by rehabilitation agencies;
3. social and cultural factors: socioeconomic background of parents, and number of moves (a measure of geographical mobility).

Limitations of the Study

The follow-up study as a form of ex post facto research has certain inherent weaknesses. Independent variables cannot be controlled; sample selection involves unavoidable bias; interpretation of previous events and situations become cloudy with the passage of time; and finally, objective interpretation of results obtained is difficult and often risky (Kerlinger, 1965). The project directors are aware of these limitations in the present study. In addition, other problems beyond the control of the project directors contributed to further limitations and weaknesses in the study.

The setting involved the collection of data from schools and agencies in five states, each of which follows a different practice with regard to record keeping procedures and the retention of records after a case is closed. Valuable initial data could not be collected on a large number of subjects because records were not available. Thus, the original intent to compare the population identified from the files of the project directors with the sample interviewed for statistical differences on a number of variables could not be carried out. The sample thus became the population for statistical analyses. The number of subjects who were located but who refused consent to be interviewed (3.6 percent) further contributed to sample bias.

The geographical separation of the project directors and their respective research assistants increased the difficulty of conducting the project. Contacts by telephone and letter, though frequent, cannot replace face-to-face communication which was not possible in view of distance and time commitment of the project directors.

The available time and financial resources precluded completing all the statistical analyses that could be done with the data collected in this study. The findings presented are primarily descriptive and were selected to fulfill the objectives of the study stated above. Review of this report both by the project personnel and professionals working with the visually handicapped should lead to the formulation of additional questions; these questions should lead to a further examination of the data for hypotheses testing. This report, therefore, should be considered as preliminary to a series of related reports that will shed additional light on variables in the vocational success of the visually handicapped.

CHAPTER II

REVIEW OF RELATED RESEARCH

The focus of this research is on factors related to the vocational success of the visually handicapped who lost their sight prior to a period of gainful employment. Research related to this study is discussed in the following sections: general follow-up studies; studies of the early blinded; counseling and the use of tests in the process of rehabilitation.

General Follow-Up Studies

The studies of Bauman (1954) and Bauman and Yoder (1966) attempted to identify factors which seemed to have a relationship to adjustment to blindness. The early study included 443 blind persons divided into three groups: well-adjusted, poorly adjusted, and an intermediate group. Bauman concluded that qualities measured by intelligence and personality inventories contributed more to adjustment than visual, health, education, or family and social interaction qualities. The goal of the second study was to determine what happens to blind persons over a period of nearly 15 years, how stable they are in either employment or unemployment, and to test the soundness of predictions made on the basis of testing and rehabilitation counseling. The findings gave considerable support to both testing and counseling as predictive factors but identified the need for caution in making negative predictions. To some extent, positive changes reflected improvements in the vocational rehabilitation environment and philosophy and the utilization of more advanced counseling and placement procedures. A major concept growing out of this study was that blindness is a form of extreme stress and each individual reacts to stress in his own particular way.

Approximately one-third of the subjects in these studies lost their vision at age 17 or older. Both studies employed descriptive statistics for comparing the groups on individual variables, including test scores, visual factors, level of education, and types of jobs held. Further, data on subjects were obtained after they had been assigned to one of the groups.

Whitstock (1960) utilized a questionnaire to study the current employment of 871 graduates of The Seeing Eye. The major findings related to vocational status, as well as some analysis of questions related to dog guides and their use.

Reid (1960) studied the vocational rehabilitation of 45 clients in a state agency for the blind. More than half the subjects became blind after the age of 18. She found that the most important factor in successful rehabilitation was the client's health. The study demonstrated the need for adequate diagnosis of each individual client and for the close working relationship between rehabilitation and other health and welfare agencies.

Several follow-up studies of the war-blinded have been published. Although Gowman (1957) was concerned primarily with the social adjustment of the war-blinded, his study does include a discussion of possible reasons for non-acceptance of the blind in the vocational world. In follow-up procedure and minute detail presented, the Veterans Administration report (1958) is exceptional both in the richness of original information on these men and women, and in the fact that the follow-up was done by trained social workers using a carefully designed schedule of questions. This study described the veterans in remarkable detail and suggested that family ties, education, and emotional stability were important factors leading to employment.

Graham et al. (1968) studied intensively 851 men with a service-connected visual loss of 70 percent or greater. The study utilized a questionnaire and various physical and psychological measures. They found that 93 percent of the men had worked following military discharge but only 41 percent was in the labor force at the time of the interview. Early retirement, poor health, adequate disability compensation, and inability to compete on the open labor market were cited as possible reasons for the high rate of unemployment. About half the subjects had no work experience prior to entering the service.

Although the veteran group may have little in common with visually handicapped youth who have never been employed, certain items from the questionnaires used in these studies were relevant and some comparisons with findings in this study may be appropriate.

Studies of the Early Blinded

The studies summarized in the preceding section included subjects who had lost their sight after attaining adulthood or who included a mixed group of congenitally and adventitiously blind. The necessity for differentiating between these two groups for various educational and psychological purposes has been stressed (Chevigny and Braverman, 1950; Wright, 1960; Lowenfeld, 1963; Cholden, 1958). That the process of vocational adjustment may also be different is postulated by Kessler (1958). This section summarizes follow-up studies of former students in schools for the blind, who would represent a group of visually handicapped with no history of gainful employment before the visual loss.

Fitting (1955) studied 60 graduates and 24 non-graduates of the Michigan

School for the Blind from 1946 through 1953. He found that 73 percent of the subjects were employed at the time of the study. The average time of employment since leaving school was 45 percent for the graduates and 37 percent for the non-graduates. The average monthly income of the group was $123 compared with the median monthly income of $266 for Michigan families in 1950. Cook (1968) studied 78 graduates of the Michigan School for the Blind for the next eight-year period following Fitting's study. He found that a larger percentage of his subjects was employed in professional and service occupations than in Fitting's group. Further, 10.3 percent of his group was unemployed compared with an unemployment rate of 4.4 percent for the State of Michigan as a whole for the same time. The median monthly income for the 50 employed subjects was $304 which compared favorably with the average monthly income of $268 for Michigan in 1966.

Buell (1955, 1956) studied 358 former students of the California School for the Blind. She found that about three-fourths of the subjects were gainfully employed; approximately one-fourth of those employed, however, were working in subsidized occupations.

As part of a larger study, Dauwalder (1964) obtained information from records and questionnaires about more than 200 graduates of the Western Pennsylvania School for Blind Children. He supplemented these data by direct interviews of a smaller sample of this group and a group of graduates of several other residential schools and former pupils in three public school districts with large numbers of day school students. He used a questionnaire and collected data on physical, visual, and personal characteristics, educational and vocational history, and attitudes toward employment, preparation for employment, and vocational services utilized. The study identified the need for schools and agencies to work with employers to increase the acceptance of visually handicapped workers.

In general, studies reviewed in the preceding sections examined the relationship of a single variable to some criterion measure, usually employment status. A study employing multivariate statistical procedures was done by Knowles (1969). The most significant variable that differentiated between his groups of 245 "successful" and of 210 "unsuccessful" cases was orientation and mobility. His "successful" group tended to be younger, to have lost their sight at an earlier age, to have been blind for a longer period of time, and to have more work experience prior to needing rehabilitation. This study does demonstrate the value of looking at the interrelationship of several variables simultaneously.

Counseling and Use of Tests in Rehabilitation of the Visually Handicapped

Measures of intelligence, personality, aptitude, and interest are major instruments of the psychologist and/or rehabilitation counselor. These professionals are called upon to make a clinical judgment based on tests concerning an individual. Subsequently the individual disappears and the clinician loses the opportunity to determine the accuracy of his predictions (Goldberg, 1968). This lack of opportunity to obtain feedback regarding one's judgments is particularly true of workers in rehabilitation. Cases are closed and clients are not seen again. When clients do not return to an agency, it cannot be assumed that they are successful. Some may not return because they are dissatisfied with the approach of the agency to the problem of blindness; some of these may seek employment on their own; others opt out of the system and elect public assistance or begging (Scott, 1969).

The importance of testing in the rehabilitation of the blind is emphasized by Dishart (1959). His model Psychological Profile provides a guide for a comprehensive psychological-prevocational evaluation. Other writers (Dean, 1957; Maxfield and Perry, 1950; Rothschild, 1959; Teare, 1963; Tiffin, 1960) describe their use of various tests with blind clients. Hoffman (1958) found that self-ratings of manual ability and biographical information concerning manual life experiences were as satisfactory as dexterity tests in predicting success in manual job tasks. None of these studies, however, assessed the long-term validity of predictions made on the basis of test results.

In the Bauman (1954) study, subjects were given a battery of tests after they had been assigned to successful and unsuccessful groups. Differences in test scores between groups were identified but these differences could not be presumed to exist had subjects been tested before the period of work experience. This limitation is discussed in detail in Bauman and Yoder (1966), the later study on the same group of subjects. These studies then shed limited light on the value of test results in making predictions for eventual success.

Similar difficulties are encountered in assessing the long-term effects of counseling. Bauman and Yoder (1966) found that counselors have a 50 percent chance of being wrong when they make negative predictions. Bolton (1968) found that statistical predictions based on biographical data were significantly more accurate than counselors' clinical predictions. However, there was considerable variability among counselors. The need for some research on the long-range evaluation of counseling has been identified by MacFarland (1969).

Summary

The interrelationship of a number of variables to vocational success of the visually handicapped seems to be largely unexplored in the literature. In addition, long-term follow-up studies on an unselected group with a rather common background has been suggested by MacFarland (1969). This study was designed to study the interrelationship of a number of factors that may be involved in the vocational success of a group of visually handicapped who lost their vision prior to any period of gainful employment. Thus it should meet some need for research as it relates to this particular group of handicapped persons.

The availability of test data on subjects in this study may shed some light on whether results of tests administered prior to employment are related to subsequent vocational success. Although tested characteristics have not been successful in predicting occupational success for the so-called normal population (Thompson, 1969), it is possible that results with a handicapped population may be different.

CHAPTER III

METHOD

Subjects

SELECTION OF INTERVIEW SUBJECTS

A total of 939 potential subjects was identified from the files of the project directors. The following criteria were used for the selection:

1. A visual impairment of sufficient severity to be eligible for special education and/or vocational rehabilitation programs in their state of residence;

2. The visual impairment acquired prior to entering the employment market;

3. A battery of tests, including intelligence, personality, vocational interest, and vocational aptitude completed during late adolescence or early adulthood;

4. Tests administered roughly between 1948 and 1958.

An attempt was made to locate each of these subjects for an interview, either by telephone or in person. Interviews were completed on 644, or 69 percent, of the population.

It was not possible to determine whether the sample interviewed differed significantly from the population on variables other than age, sex, race, and I.Q. Some of the data on the *Case History Data* form were obtained from the subject at the time of the interview since school and agency records were destroyed or otherwise unavailable in several states. For most subjects not interviewed, available information on the *Case History Data* forms was limited to the four variables listed above. Inspection of Tables A.1, A.2, A.3, and A.15 (Appendix A) shows that the interview sample is similar to the population except on race. When a correction is made for the high percentage (16.9) for whom these data were not available, however, the percentages become similar.

SELECTION OF COMPARISON GROUP SUBJECTS

Subjects for the three comparison groups were selected from the interview sample after preliminary analyses of data were completed. A description of the procedure employed for this selection is included in Chapter IV.

SELECTION OF RE-TEST SUBJECTS

Approximately one-third (207) of the subjects interviewed was selected for the re-test portion of the project. This sample was stratified by intelligence test scores using the procedure described below. The geographical separation of the project personnel necessitated two applications of this procedure; subjects from Michigan were treated as one group and those from the remaining states as a second group. Data from both groups were combined for purposes of analysis.

1. Subjects were arranged in order of I.Q. from lowest to highest using the most recent I.Q. score obtained from the verbal scale of a Wechsler test (WAIS, W-B II, W-B I).

2. Subjects were marked off in groups of three up and down beginning with the median.

3. From each group of three, the one subject was selected whose geographical location was most reasonable and who was considered willing to cooperate as determined by the interviewer.

This procedure provided flexibility for sample selection since those with identical I.Q.s could be shifted between groups. For example, if six subjects had identical I.Q.s, two subjects could be selected from a total group of six, even though the two selected may have appeared in the same original group of three.

The bias that may result from the selection of those subjects who were considered cooperative was recognized. However, there seemed to be no alternative for the following reasons: test results are considered more valid and reliable when the full cooperation of the subject is present; the subjects in this study were adults already established in their vocational pattern and the results of the testing would probably have little impact on any future plans they may have and thus be of limited value to them; the token payment of ten dollars to each subject for the testing was small compared to the length of the session (approximately four hours). For these reasons, only potentially cooperative subjects were selected.

DESCRIPTION OF SUBJECTS

The subjects include former pupils from residential and day schools in Maryland, Michigan, New Jersey, Pennsylvania, and Virginia. Tables in Appendix A present demographic data on the subjects.

The following statements summarize the characteristics of the interview subjects:

1. There were more males (63.7 percent) than females (36.3 percent) (Table A.1). This is not consistent with data reported by Scott (1969) nor with that for the Model Reporting Area (HEW, 1965).

2. The subjects included a very small percentage of non-Caucasian (8 percent) compared to 11.4 percent for the nation as a whole (U.S. Bureau of the Census, 1964) and approximately 23 percent for the Model Reporting Area (HEW, 1965). (Table A.2)

3. The age range of the subjects at the time of the interview was from 23 to 42 with 66.8 percent 30 or over (Table A.3).

4. The subjects included a high percentage (84.2 percent of the 616 for whom these data were available) who lost their vision prior to the age of five, the typical school entering age, and therefore were educated as visually handicapped pupils (Table A.4).

5. The subjects included a high percentage (93.5) with very restricted vision (legally blind) in both eyes, and approximately half the subjects did not have sufficient usable vision to utilize large print effectively (Tables A.5 and A.6). These data were not available for 27 subjects.

6. The subjects included many with a wide variety of other disabilities reported. These data were considered very incomplete; the actual number with other disabilities is probably considerably higher (Table A.7).

7. The educational level of the fathers was slightly higher than that of the mothers (Tables A.8 and A.9). It should be noted, however, that the educational level of more fathers was unknown. The median for both parents was below the median educational attainment of 10.6 for the nation as a whole (U.S. Bureau of the Census, 1965).

8. The socioeconomic index of the parents of the subjects approximates that of the population on whom the index was constructed (Reiss, 1961, p. 147) (Table A.11).

9. The religion of the subjects while in school was predominantly Protestant (Table A.12).

10. There was considerable movement of subjects between residential and day school programs during their school years. However, more than half had all of their education in one setting (Table A.13). These data must be interpreted cautiously because years in other settings are not included.

11. The mean I.Q. of the subjects was slightly above average (Table A.15).

Instruments

Two instruments were developed for gathering data on subjects in this study. The format for both was designed to facilitate direct key-punching of the data, with pre-coding for most items.

CASE HISTORY DATA FORM

Description

The Case History Data form was designed to record information on subjects from the following sources: files of the project directors, of schools attended, and of vocational rehabilitation agencies. The following types of information were included: personal data: birthdate, sex, race, religion, vision, other disabilities; family background: marital status of parents, number of siblings, education and occupation of parents; school history: years in residential and day school programs, highest grade completed; post-high school training: type and duration; agency history: counseling and money spent; test data. A copy of the Case History Data form may be found in Appendix B.

Instructions for Use

A set of instructions was prepared for use of the research assistants who completed this form (see Appendix B). These instructions were designed to give consistency to recording data since several persons participated in this aspect of the project.

Most items on this instrument were pre-coded. For those not pre-coded, a single research assistant coded all forms for individual items in order to have consistent judgment where certain decisions had to be made. A copy of the coding instructions for the Case History Data form may be found in Appendix B.

INTERVIEW FORM

Description

The Interview form was designed to obtain information concerning the subject's current status both personally and vocationally. Data for this form were obtained directly from the subject during an interview either in person or by telephone. Prior to use, a draft of the Interview was reviewed by school and agency personnel in the states involved in the project and revisions were made on the basis of their suggestions. A copy of the Interview may be found in Appendix B. The "Interviewer's Report" at the bottom of the first page of the copy in the Appendix was repeated at the bottom of each page of the actual form used. These data were summarized at the end of the instrument in order to obtain some measure of the subject's cooperation during the interview.

The Interview included the following types of information: family and personal: marital status, living arrangements, children, other disabilities; employment history: job title, how obtained, income, reasons for leaving; other sources of income; kind of access to the printed word; opinions on education; travel ability; counseling; social activities: church, community, recreation; attitude toward self; general health; height and weight; mannerisms; attitude toward innovations.

Instructions for Use

Instructions for conducting the interview were prepared and discussed by one of the project directors with each interviewer. Prior to seeing their first subject, interviewers accompanied one of the project directors for one or more sessions. Following the first interview, a project director reviewed in detail with the interviewer the form which he had completed. Interviewers met with one of the project directors regularly in order to discuss problems arising and experiences they were having.

When approximately one hundred interviews were completed, a coder reviewed each one in detail and a supplement to the original instructions was prepared on the basis of this review. A summary of the two sets of instructions may be found in Appendix B.

Most items on this instrument were also pre-coded. For those which were not, the same procedure was followed as described above. A copy of the coding instructions for the Interview may be found in Appendix B.

TEST INSTRUMENTS

Tests used with the subjects varied for two reasons: the initial tests were administered by the three project directors, each of whom had utilized different tests based on her personal preference and experience with various measures; initial tests were administered over a ten-year span of time during which new tests were employed as they became available and old tests were discarded. Although all subjects were administered intelligence, personality, vocational interest and vocational aptitude tests, different measures were employed for each category. The initial tests administered are described below. The number of subjects taking these tests varied. (See Chapter IV)

Intelligence

Data from the verbal scale of Wechsler-Bellevue I (WB-I), Wechsler-Bellevue II (WB-II), or Wechsler Adult Intelligence Scale (WAIS) were available for all subjects (Wechsler, 1944, 1955).

The Non-Language Learning Test is a non-verbal measure of learning ability developed by Bauman (1947).

Personality

The Emotional Factors Inventory (EFI) is a questionnaire type personality inventory consisting of 170 statements (Bauman, 1958). The test was developed for use with the visually handicapped. A copy of the EFI may be found in Appendix B. The EFI yields eight sub-test scores as follows: sensitivity, somatic symptoms, social competency, attitudes of distrust, feeling of inadequacy, depression, attitudes regarding blindness and a validation scale.

The Bell Adjustment Inventory is a paper and pencil personality test. It consists of 125 items and has four sub-test scores as follows: home, health, emotional, and social (Bell, 1939).

The Bernreuter Personality Inventory is a paper and pencil test consisting of 125 items (Bernreuter, 1935). Three of the six sub-test scales were used: B1-N: a measure of neurotic tendency; B2-S: a measure of self-sufficiency; and B4-D: a measure of dominance-submission.

Both the Bell and the Bernreuter were standardized on a sighted population but have been used with blind adolescents (Scholl, 1953).

Vocational Interest Tests

Although standardized on a sighted population, the *Kuder Preference Record* is an interest inventory commonly used with the visually handicapped. The Kuder consists of 100 three-choice items with the following sub-test scales: mechanical, computational, scientific, persuasive, artistic, literary, music, social service, and clerical (Kuder, 1956).

The *Brainard Occupational Preference Inventory* is a 120 item inventory. The subject responds to each item according to a five point scale from "strongly dislikes" to "strongly likes" the activity described. Scores are obtained for the following broad occupational fields: commercial, agricultural (only), personal service (females only), mechanical, professional, artistic, and scientific (Brainard and Brainard, 1956).

The *Lee-Thorpe Occupational Interest Inventory* is a 150 two-choice item scale. It yields three groups of scores as follows: fields of interest (personal-social, natural, mechanical, business, arts, science); types of interests (verbal, manipulative, computational); and level of interests (Lee and Thorpe, 1956).

Vocational Aptitude Tests

The Minnesota Rate of Manipulation is a test of manual dexterity which has been adapted for the blind (Bauman, 1958). The test consists of a long board containing sixty round blocks in four rows of fifteen holes each. There are two parts to the test: displacing and turning.

The Crawford Small Parts Dexterity Test (Screw Driver Dexterity) has likewise been adapted for the blind (Bauman, 1958). The test score is twice the time required to screw 36 screws in a board consisting of seven rows of holes, six holes in each row.

The Pennsylvania Bi-Manual Worksample consists of a board with 100 holes, 10 in each of 10 rows. There are two scores: the time required to assemble 80 nuts and bolts and place in the holes, and the time required to disassemble the 100 nuts and bolts (Bauman, 1958). The first two rows are considered practice rows for assembly.

RE-TEST INSTRUMENTS

The purpose of the re-test portion of the project was to determine the long-term reliability of initial measures and to try out new measures on an established adult population. The variation in specific measures used during the initial testing of the subjects meant that different measures would be necessary for the re-test sample as well. A further consideration in the selection of the tests was the length of the testing session. It was anticipated that subjects might not be well motivated to participate in a lengthy testing session since personal returns to them in the form of utilization of test results in future plans, would be limited. Therefore, only those tests were selected that would yield a maximum return. No re-tests on vocational aptitude measures were administered. The following new measures were selected as appropriate additions:

1. The Stanford Ohwaki-Kohs Tactile Block Design Intelligence Test for the Blind (Suinn, et al., 1966).

2. The Anxiety Scale for the Blind (Hardy, 1968); this scale was modified by M. K. Bauman; a copy may be found in Appendix B.

3. The Personnel Research Center Interest Inventory; this is a new measure recently developed by M. K. Bauman; a copy may be found in Appendix B.

The following summarizes the measures included in the re-test portion of the study.

1. Intelligence: Wechsler-Bellevue I or II; Wechsler Adult Intelligence Scale; Stanford-Kohs.

2. Personality: Emotional Factors Inventory (see Appendix B); Hardy Anxiety Scale—modified form (see Appendix B).

3. Vocational Aptitude: Kuder Preference Record or Lee-Thorpe Occupational Interest Inventory; Personnel Research Center Interest Inventory (see Appendix B).

A copy of the form used for reporting the re-test data and the coding instructions may be found in Appendix B.

Procedure

COMPLETION OF INSTRUMENTS

Case History Data Form

A Case History Data form for each subject was completed from the files of schools, agencies, and the project directors. Many difficulties were encountered in gathering data for this form, particularly from agency records. Some subjects were not seen by an agency for a variety of reasons; some agencies destroy records of inactive cases after periods of time ranging from five years to ten years; some send records to archives where they are not accessible even for research purposes. As a result, data were missing for many subjects. For some items, the interviewer could secure the missing information at the time of the interview. However, this procedure was neither possible nor appropriate for certain items.

The inability to obtain complete data on all subjects, whether interviewed or not, resulted in not knowing if the group interviewed differed significantly from the population on variables other than the four listed above. Complete data were available for subjects from one or more states but such data could not be used to generalize about the total group since by inspection, differences among subjects from the various states were noted. It was not possible to analyze data by states within the scope of this project.

This initial phase of data collection was conducted from September through December 1967.

Interview Form

The present whereabouts of subjects was ascertained through a variety of methods. Those active with agencies or receiving public assistance were most readily located. Others were located by contacting members of the immediate family at the last known address; through addresses supplied by school alumni associations; or by asking subjects interviewed if they knew the whereabouts of certain classmates. Person-to-person calls to all numbers listed for surnames in the community with the last known address resulted in locating a few of the difficult cases. In addition, interviewers went to communities where the subject was last known to reside and made inquiries in person. Every known resource was utilized to locate the subjects.

In a few cases subjects were located but the interviewer was unable to complete the interview for a variety of reasons: the subject was unwilling to be interviewed; severe hearing loss or other disability precluded a successful interview.

Subjects were interviewed in a variety of places and under varying circumstances. In some cases, a telephone or letter contact was made prior to the interview; in other cases, the interviewer went directly to the last known address and arranged for an appointment at some future date. Where convenient, interviews took place in the home of the subject. In a few instances, subjects preferred to meet the interviewer at an office or some other convenient place near their homes. In a few cases, the interviewer found that taking the subject to lunch or dinner made him more willing to be interviewed. In those cases where the subject moved too far away and could not be reached in person, a telephone interview was conducted. Table 3.1 summarizes the above information.

Table 3.1

SUMMARY OF DATA CONCERNING TOTAL NUMBER
OF SUBJECTS AND NUMBER INTERVIEWED

	N	Percent
Total Eligible Subjects	939	100.0
Known Deceased	26	2.8
Refused to be interviewed	34	3.6
Lost	235	25.0
Interviewed: In Person 530 By Telephone 110 N.R. 4	644	68.6

No attempt was made to limit the length of the interview or to record the time required for the interview. Most interviews were completed in approximately one and a half hours, although they ranged from an hour to four hours. On the whole, subjects were very cooperative and many offered valuable assistance in locating other subjects, even making initial contacts for the interviewer. Following the interview, a note of appreciation was prepared in braille or type on behalf of the project directors.

The interview phase of the study was conducted during the calendar year 1968.

RE-TESTS

Subjects selected for this portion of the project were contacted in advance and a time and place agreed upon for the testing. Subjects were given a token payment of $10 for participating. The time needed for completing the tests was approximately three to four hours. This re-test phase was conducted during the winter, spring and summer of 1969.

CODING THE INSTRUMENTS

Most items on both instruments were pre-coded and recorded directly on the instrument by the research assistant or the interviewer. The remaining items fell into two categories: those which were coded later utilizing published resources and those which required a subjective judgment.

An illustration of the former was visual acuity. These data were coded according to Rehabilitation Codes (Reviere, 1964). The resource utilized for all such items is included in the coding instructions for each instrument (see Appendix B).

An illustration of the latter was the determination of the degree of counseling. The intent of the project directors was to obtain an objective picture of counseling from the school and/or agency records and a subjective report from the subject regarding his view of the kind and amount of counseling he received, in order to compare subject and agency perception of counseling. The unavailability of agency records precluded such a comparison and therefore a subjective evaluation had to be made. For this item, and others similar to it, a four-category code was adopted. Two research assistants and one of the project directors reviewed a series of completed instruments and arrived at independent judgments. These judgments were then compared for discrepancies and a set of guidelines evolved. This process was continued until complete agreement was reached by all three for ten consecutive subjects. One research assistant then continued coding this item for all subjects.

Each item not coded directly on the instruments was coded by one research assistant for all subjects.

DATA ANALYSIS

Data from the instruments and the re-tests were punched on cards. Programs were computed on the Michigan Terminal System of The University of Michigan Computing Center on an I.B.M. 360 Model 67-2. Reproduction of cards, lists, and interpretation of cards were done on I.B.M. 360 Model 20.

A description of statistical procedures utilized may be found in Appendix C.

CHAPTER IV

RESULTS

The findings are reported under these headings: general description of current occupational status; relationship of predictor variables to criterion variables; comparison of three sub-groups of varying levels of success; relationship of sub-test scores of tests as predictor variables to criterion variables; and results from re-tests.

General Descriptive Data

Subjects in this study had completed or should have completed high school from eight to twenty years prior to being interviewed during the calendar year 1968. It might be reasonable to assume that they would be established in some occupation and therefore employed at the time this study was conducted. Table 4.1 reports the employment status of subjects at the time of the interview. The percentage of unemployed females is high because housewives were included in this category.

TABLE 4.1

EMPLOYMENT STATUS OF SUBJECTS AT TIME OF INTERVIEW

	Employed		Unemployed		No Report	
	N	Percent	N	Percent	N	Percent
Males	345	84.2	64	15.6	1	0.2
Females	107	45.7	127	54.3	0	0.0

Table 4.2 shows the distribution of subjects in various income categories. The median annual income for the U. S. during 1967 was $8,400 (U. S. Bureau of the Census, 1969). Eighty-seven percent of the subjects earned less than $8,000 from their principal job, and 77.0 percent had a total annual income (including that of their spouse) of less than $8,000. The criterion for poverty income is related to size of family and ranges from an annual income of $1,685 for one person under 65 to $3,335 for a family of four (U. S. Bureau of the Census, 1969); 24.8 percent of the subjects in this study had a total annual income of $2,000 or less.

TABLE 4.2

ANNUAL INCOME OF SUBJECTS

	Job Income		Total Annual Income	
	N	Percent	N	Percent
Less than 500	113	17.6	76	11.8
501 - 1,000	26	4.0	40	6.2
1,001 - 2,000	55	8.5	44	6.8
2,001 - 3,000	83	12.9	55	8.5
3,001 - 4,000	65	10.0	50	7.8
4,001 - 5,000	77	12.0	67	10.4
5,001 - 6,000	65	10.0	65	10.1
6,001 - 7,000	41	6.4	54	8.4
7,001 - 8,000	36	5.6	45	7.0
8,001 - 9,000	24	3.7	34	5.3
9,001 - 10,000	23	3.6	32	5.0
10,001 - 12,500	23	3.6	37	5.7
12,501 - 15,000	5	0.8	14	2.2
15,001 - 17,500	3	0.5	15	2.3
17,501 - 20,000	4	0.6	11	1.7
20,001 - 25,000	1	0.2	5	0.8

Sociologists use an individual's occupation for determining his social class (Blau and Duncan, 1967; Reiss 1961). Table 4.3 shows the distribution of the subjects on the Socioeconomic Index for Occupations (Reiss, 1961).

TABLE 4.3

SOCIOECONOMIC INDEX FOR SUBJECTS

SEI	N	Percent	Illustrative Occupation
90-99	5	0.8 (1.0)	Physicians and surgeons (92)
80-89	28	4.4 (2.5)	University or college Teachers (84)
70-79	60	9.3 (3.8)	Teachers (72)
60-69	95	14.7 (6.7)	Social workers and rehabilitation counselors (64)
50-59	31	4.8 (5.6)	Musicians (52)
40-49	53	8.2 (9.3)	Professional nurses (46)
30-39	81	12.6 (11.4)	Piano tuners (38)
20-29	16	2.5 (10.8)	Practical nurses (22)
10-19	103	16.0 (33.9)	Packers and wrappers (18)
0- 9	172	26.7 (15.0)	Hucksters and peddlers (08)

The last column includes illustrative occupations for each group. The numbers in parentheses in the percent column are percentages derived from the distribution of the Index in the population on whom it was constructed (Reiss, 1961, pp. 146-47). It is of interest to compare the distribution of subjects in this study with these percentages. Approximately 45 percent of these subjects fall in the bottom three intervals, compared with about 60 percent of the male civilian labor force; further the mode for these subjects falls in the 0-9 interval compared with the mode in the 10-19 interval for the standardization population. The number of subjects in this study in the 60-89 range is also higher. It should be noted that these data include females whereas the comparative percentages are derived from the male civilian labor force.

A study of the occupations of the subjects shows that the range is relatively restricted. Males were engaged in 79 and females in 47 different jobs as classified according to the U. S. Bureau of the Census (1964).

Table A.10 (Appendix A) reports the educational level of the subjects at the time of the interview. A comparison of data reported in this table with that reported in Tables A.8 and A.9 shows that the subjects have completed more years of schooling than either of their parents. This would be consistent with the general observation that each generation reaches a higher level of educational attainment than his parents.

Table A.14 (Appendix A) gives the marital status of subjects. The percent of interview subjects who have been married at least once (61.0) is slightly lower than the 67.4 percent for the U. S. in 1960 (U. S. Bureau of the Census, 1964). Bauman (1954) found a lower percentage (47.5) of married in her study and the sex differences were the reverse of those for subjects in this study: 65.4 percent of females in this study were married compared with 36.6 percent in her study; 58.5 percent of males in this study compared with 52.0 in her study. The higher percentage of married females than married males in this study is also not consistent with data on marital status of the handicapped discussed by Wright (1960). The difference, however, may be a reflection of greater opportunities now being provided the handicapped, especially females, to meet members of the opposite sex. Data on vision of mates were not analyzed as part of this study.

Relationship of Predictor Variables to Criterion Variables

DEFINITION OF CRITERION VARIABLES

Three criterion (dependent) variables were selected to describe the current occupational success of the subjects. A description of how each was determined follows:

1. Percentage of time worked (PTW). Since the year for school leaving of the subjects varied, the actual number of years of gainful employment could not be used as a measure of time employed. Therefore, a percentage of time worked (PTW) was computed for each subject. This was computed from the number of years between high school graduation or school leaving and the time of the interview, less the period spent in further education or other training programs.

2. Income. One of the measures of success in American society is the amount of money one earns. Income from the principal job of the subjects was used as the second criterion variable. Income was classified into the following groupings:

Less than $500
$500 to 1000
1001 to 2000
2001 to 3000
3001 to 4000
4001 to 5000
5001 to 6000
6001 to 7000
7001 to 8000
8001 to 9000
9001 to 10000
10001 to 12500
12501 to 15000
15001 to 17500
17501 to 20000
20001 to 25000

3. Socioeconomic Index for Occupations (SEI). The Socioeconomic Index for the current occupation of the subject was determined using Reiss (1961). Several jobs that are more or less unique to the visually handicapped were classified by the project personnel on the basis of comparison with jobs listed on the Index. A description of procedures utilized in this process and modifications and additions made in the Index are included in Appendix D. For those currently unemployed, the SEI of the last job was used; a relatively few who had never worked were coded as 00.

The table showing the intercorrelation of these three criterion variables may be found in Appendix E, Table E.1.

It should be noted that none of these criterion variables included a measure of job satisfaction. The relatively large amount of missing data on items related to job satisfaction made statistical treatment inappropriate for the total group of subjects.

DEFINITION OF PREDICTOR VARIABLES

Sixteen predictor (independent) variables were selected for the purposes of this report. These specific variables were selected for one or more of the following reasons: previous studies showed their relationship to success (I.Q., age of onset, degree of vision); a review of present practices in vocational rehabilitation would postulate a relationship to success (counseling, education, money spent); studies of other disadvantaged groups showed relationships to various measures of success (parents' socioeconomic status, geographic mobility); and finally, additional characteristics that would seem to have a relationship (other disabilities, travel ability, marital status). The specific items utilized for obtaining the data and the coding procedures for each variable may be found in Appendix B.

The sixteen variables are as follows (variables are numbered as they appear in the tables):

Personal Variables:

(1) Sex (Item 3, Case History Data).

(3)-(7) Vision (Item 15, Case History Data). Data concerning onset of visual loss and degree of vision were recorded separately for right and left eyes and were entered as four separate variables for data analysis. The measure of functional vision was based on the vision record (Item 15, Case History Data) and the subject's report of how he does his reading and writing (Items 13-17, Interview).

(8) Other disabilities (Item 16, Case History Data and Item 9, Interview). The presence of other disabilities was the absolute number of different disabilities reported regardless of severity.

(14)-(15) Marital status (Item 5, Interview). Subjects were classified as single or married.

Educational and/or Rehabilitation Variables:

(9) Counseling (Item 19, Case History Data and Item 22, Interview). The degree of counseling was determined by the subject's report and where possible a review of agency records.

(10) Amount of money (Item 21, Case History Data). The total amount of money spent on the subject according to the agency records.

(11) Education (Item 22, Case History Data). The educational level of the subject at the time of the interview.

(13) I.Q. (Item 26, Case History Data). The I.Q. obtained from a Wechsler-Bellevue Form I or Form II was used.

(16) Travel (Items 20 and 21, Interview). A measure of travel ability was derived from the subject's report at the time of the interview.

Social and Cultural Variables:

(2) Socioeconomic Index (Item 9, Case History Data). The socioeconomic index of the father was determined using Ducan's Scale (Reiss, 1961). If data for the father were not available, those of the mother were used.

(12) Number of moves (Item 24, Case History Data). The number of different addresses the subject had had since high school was used as a measure of geographical mobility.

Table E.2 (Appendix E) reports the intercorrelation of these predictor variables and their correlation with the criterion variables.

RESULTS

Tables 4.4, 4.5, and 4.6 report the relationship between the predictor variables and the three criterion variables PTW, income, and SEI, respectively. A study of the tables shows that the intelligence test score is the best predictor for all three criterion variables.

It should be noted that the F Value reported in these and in succeeding tables does not refer to the strength of the relationship reported but rather whether the reported relationship could have resulted from chance.

Comparison of Three Groups of Subjects

Three groups of subjects were identified for comparative purposes and special study. These groups were defined as follows:

Group A: high on percentage of time worked, income,and socioeconomic index (N = 24).

Group B: high on percentage of time worked but low on income and socioeconomic index (N = 31).

Group C: low on percentage of time worked, income, and socioeconomic index (N = 27).

TABLE 4.4

BEST PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED

Variable	Multiple R	Multiple RSQ	F Value
WB-I.Q.	0.4253	0.1809	139.7856**
Travel ability	0.4913	0.2414	50.4184**
Sex	0.5375	0.2889	42.1568**
Level of education	0.5563	0.3095	18.7399**
Other Disabilities	0.5660	0.3203	10.0734**
Functional vision	0.5671	0.3216	1.1351
Parent's SEI	0.5677	0.3222	0.6193
Best corrected vision: Left eye	0.5680	0.3226	0.3686
Right eye	0.5687	0.3234	0.7048
Married	0.5687	0.3235	0.0614
Single	0.5701	0.3250	1.3999
Age of onset: Right eye	0.5701	0.3250	0.0323
Left eye	0.5702	0.3252	0.1521
Money Spent	0.5703	0.3252	0.0326
Degree of counseling	0.5703	0.3252	0.0235

$^{**}P \leq .01$

$^{*}P \leq .05$

TABLE 4.5

BEST PREDICTOR VARIABLES FOR INCOME

Variable	Multiple R	Multiple RSQ	F Value
W-B I.Q.	0.2814	0.0792	54.4218**
Sex	0.3503	0.1227	31.3858**
Functional vision	0.3864	0.1493	19.6820**
Married	0.4068	0.1655	12.2230**
Other disabilities	0.4175	0.1743	6.7484**
Level of education	0.4261	0.1816	5.5579**
Degree of counseling	0.4360	0.1901	6.6078**
Best corrected vision: Left eye	0.4388	0.1926	1.9298
Parent's SEI	0.4411	0.1945	1.5111
Money spent	0.4426	0.1959	1.0421
Number of moves since high school	0.4437	0.1968	0.7437
Best corrected vision: Right eye	0.4443	0.1974	0.4263
Age of onset: Right eye	0.4445	0.1976	0.1792
Single	0.4448	0.1978	0.1697
Travel ability	0.4448	0 1979	0.0384
Age of onset: Left eye	0.4449	0.1979	0.0388

$**P \leq .01$
$*P \leq .05$

TABLE 4.6

BEST PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX

Variable	Multiple		F Value
	R	RSQ	
WB-I.Q.	0.5650	0.3192	296.8191**
Level of education	0.6162	0.3798	61.6897**
Other disabilities	0.6317	0.3990	20.2043**
Money spent	0.6415	0.4115	13.3647**
Sex	0.6446	0.4155	4.3598**
Travel ability	0.6466	0.4180	2.6863*
Number of moves since high school	0.6480	0.4198	1.9632
Parent's SEI	0.6494	0.4218	2.0748
Age of onset:			
Right eye	0.6506	0.4233	1.7030
Left eye	0.6513	0.4242	0.9601
Degree of counseling	0.6519	0.4250	0.7984
Single	0.6522	0.4253	0.4227
Married	0.6560	0.4304	5.4588
Best corrected vision:			
Right eye	0.6564	0.4308	0.4960
Functional vision	0.6564	0.4308	0.0168

**P $\leq .01$
*P $\leq .05$

No subject was included in more than one group. Table 4.7 summarizes the characteristics of the three groups on the three criterion variables. None of the subjects in Group A was receiving any form of public assistance; 8 in Group B were receiving Aid to the Blind and/or Social Security benefits and 1 was receiving Aid to Dependent Children; 15, or more than one-half in Group C were receiving Aid to the Blind and/or Social Security.

TABLE 4.7

SUMMARY OF COMPARISON GROUPS ON CRITERION VARIABLES

	Group A (N = 24)		Group B (N = 31)		Group C (N = 27)	
	N	Percent	N	Percent	N	Percent
PCTW:						
0					22	.80
1- 7					5	.20
90-95	5	.20	8	.25		
99	19	.79	23	.74		
INCOME:						
0			6	.19	27	1.00
Less than $500			1	.03		
500- 1,000			4	.13		
1,001- 2,000			7	.23		
2,001- 3,000			13	.42		
5,001- 6,000	1	.04				
6,001- 7,000	3	.13				
7,001- 8,000	5	.21				
8,001- 9,000	1	.04				
9,000-10,000	10	.42				
10,001-12,500	1	.04				
12,501-15,000	1	.04				
15,001+	2	.08				
SEI:						
0- 9			6	.19	27	1.00
10-19			13	.41		
20-29			2	.06		
30-39			10	.31		
70-79	7	.29				
80-89	14	.57				
90-99	3	.13				

Selected demographic data on these subjects are included in Tables A.1, A.3, A.6-A.12 (Appendix A). The following statements summarize data presented in these tables:

1. A smaller percentage of females is included in Groups A and C than in the interviewed group; a larger percentage of females is included in Group B (Table A.1).

2. The median age of Group B is lower than that of the other comparison groups and the interview group (Table A.3).

3. Group C includes a larger percentage of subjects who use or prefer using braille. Almost two-thirds of Group C (62 percent) fall into the bottom two categories of functional vision compared with 48 percent for Group A and 45 percent for Group B (Table A.6).

4. Except for one speech problem and one hearing problem subjects in Group A report no other types of disabilities whereas other disabilities were reported most frequently for Group C and somewhat less frequently for Group B (Table A.7).

5. The educational level of both parents and their socioeconomic index is higher for subjects in Group A and in general lowest for Group B (Tables A.8, A.9, and A.11).

6. Group B includes a higher percentage of subjects whose religion was stated as Catholic while in school (Table A.12). Table 4.8 reports data concerning the present religion of the three groups.

TABLE 4.8

PRESENT RELIGION OF COMPARISON GROUPS

	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
Protestant:						
Major Sect	13	.54	18	.58	15	.56
Minor Sect	2	.08	2	.06	7	.26
Catholic	5	.21	9	.29	4	.15
None	3	.13	1	.03	1	.04
Not given	1	.04	1	.03		

7. A higher percentage of subjects in Group A are or have been married than either Groups B or C (Table A.14).

Additional data for the comparison groups were examined and are presented in this section.

Tables 4.9 and 4.10 report the number of years subjects in these groups spent in residential and public schools. Years spent in public schools include both those in special and regular classes. Data in this table show that subjects in Group A spent more of their school years in day school programs; about one-third shifted between the two types of programs. Subjects in Group B in general moved a great deal between the two types of programs while those in Group C moved somewhat less. These data have certain limitations since years in other settings such as private schools, tutoring at home, etc., are not included. In addition, the data are difficult to interpret regarding number of years since nursery school may be included for some residential and day school programs.

TABLE 4.9

YEARS COMPARISON GROUP SUBJECTS SPENT IN RESIDENTIAL SCHOOLS

Years	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
0	14	58.4	10	32.3	12	44.5
1- 3	2	8.3	4	12.9	3	11.1
4- 6	3	12.5	5	16.1	5	18.5
7- 9			3	9.7	2	7.4
10-11	2	8.3	5	16.1	3	11.1
12 or more	3	12.5	4	12.9	2	7.4
	24		31		27	

TABLE 4.10

YEARS COMPARISON GROUP SUBJECTS SPENT IN DAY SCHOOLS

Years	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
0	3	12.5	5	16.2	10	37.1
1- 3	2	8.3	3	9.7	4	14.8
4- 6	2	8.3	6	19.3	2	7.4
7- 9	1	4.2	6	19.3	5	18.5
10-11	2	8.3	6	19.3	3	11.1
12 or more	14	58.4	5	16.2	3	11.1
	24		31		27	

The level of education of the subjects in the comparison groups is reported in Table A.10 (Appendix A). As might be expected, the educational level of Group A is considerably higher than that for Groups B and C. It is interesting to compare data in this table with those data presented in Tables A.8 and A.9. Subjects in Group A exceeded the general educational level of both their parents; two subjects in Group B exceeded the highest educational level of both mothers and fathers of these subjects; two subjects in Group C had some college whereas four fathers and one mother attended college.

Table 4.11 presents data concerning the degree of counseling for subjects in the comparison groups, and Table 4.12 for the amount of money spent on the subjects. The determination of degree of counseling described earlier was somewhat subjective since records were grossly deficient for this item. The three groups, however, seem remarkably similar on this variable. It is not surprising that more money was spent on subjects in Group A since a relatively large percentage (91.7) went on to college.

TABLE 4.11

DEGREE OF COUNSELING FOR SUBJECTS IN THE COMPARISON GROUPS

	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
Little or none	7	29.2	7	22.6	9	33.3
Routine	11	45.8	17	54.8	14	51.9
Fairly extensive	5	20.8	6	19.4	3	11.1
Extensive	1	4.2	1	3.2	1	3.7

TABLE 4.12

AMOUNT OF MONEY SPENT ON SUBJECTS IN THE COMPARISON GROUPS

	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
Under $100	1	4.2	5	16.1	4	14.8
100-999	1	4.2	5	16.1	4	14.8
1000-4999	7	29.2	3	9.6	5	18.5
Over $5000	7	29.2	2	6.5		
Amount not given			2	6.5	1	3.7
No record	7	29.2	14	45.2	13	48.2

Table 4.13 presents data concerning how the present (or last) job was obtained. Subjects in Group A would seem to have more initiative in securing their own jobs than those either in Group B or Group C. An equal number of subjects in Group B obtained jobs on their own and through agencies for the blind. The large number of subjects in Group C for whom there was no report on this item may be those who have never been employed. The independence of Group A in securing their own jobs is consistent with the findings of Graham (1968) and observations of Scott (1969).

TABLE 4.13

HOW PRESENT (OR LAST) JOB WAS OBTAINED BY SUBJECTS IN COMPARISON GROUPS

	Group A		Group B		[illegible]up C	
	N	Percent	N	Percent	N	Percent
Agency for Blind			13	41.9	7	25.9
Other agency			2	6.6	1	3.7
Relatives or friends	1	4.2	1	3.2	1	3.7
Minister, Phy.	1	4.2				
Service club			1	3.2		
Self	21	87.4	13	41.9	4	14.8
Promotion					1	3.7
Other	1	4.2				
Not reported			1	3.2	13	48.2

Table 4.14 presents data concerning the travel ability of subjects in the comparison groups. Most of the subjects in Groups A and B, the groups with a high percentage of time worked, tend to be the most independent in travel ability. These data do need to be viewed with caution since travel ability could not be evaluated objectively within the scope of this project.

TABLE 4.14

TRAVEL ABILITY OF SUBJECTS IN THE COMPARISON GROUPS

Rating	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
1-2	20	83.4	25	80.6	8	29.6
3-4	2	8.3	4	12.9	14	51.9
5-6					2	7.4
7-9					2	7.4
No response	2	8.3	2	6.5	1	3.7

Table 4.15 presents data concerning the weight of the subjects. While the subjects in all three groups tend to be overweight, more of those in Group C seem to be overweight which may be related to their lower level of travel ability.

TABLE 4.15

WEIGHT OF SUBJECTS IN COMPARISON GROUPS

	Group A		Group B		Group C	
	N	Percent	N	Percent	N	Percent
10-25% underweight			1	3.2	1	3.7
Up to 10% underweight	2	8.3	1	3.2	3	11.1
Within average range	6	25.0	8	25.8	5	18.5
Up to 10% overweight	7	29.2	7	22.6	5	18.5
10-25% overweight	7	29.2	9	29.1	7	26.0
More than 25% overweight	2	8.3	4	12.9	5	18.5
No response			1	3.2	1	3.7

Relationship of Test Scores as Predictor Variables to Criterion Variables

The variety of tests administered initially to the subjects precluded the possibility of employing the stepwise regression program for statistical analysis using each test score as a predictor variable because the numbers taking any one specific test varied, resulting in much missing data. The computer program utilized for the data reported in the foregoing section (Dixon, 1968) does allow for missing data through transgeneration. The particular transgeneration technique employed for data reported in the previous section was the substitution of the group mean score for any missing score. However, this technique was not appropriate for the test data since the total number taking any one specific test ranged from 27 to 381. Therefore, each test was treated individually. Where there was a single score, correlation coefficients are reported; where there were sub-test scores, these were used as predictor variables for each criterion variable employing the stepwise regression program. Data reported in this section include only males and employed females.

Results obtained from the various tests are reported under the following headings: intelligence, personality, vocational interest, and vocational aptitude. All tables are found in Appendix E.

INTELLIGENCE

Sub-test scores on the Wechsler-Bellevue intelligence tests were not recorded during the initial data collection. Consequently I.Q. scores only were utilized. Data reported in Table E.2 show that I.Q. had the following coefficient of correlation with the criterion variables: Income: .28; Percentage of time worked: .43 and Socioeconomic Index: .56.

Data from the Non-Language Learning Test were as follows: .24 with Income; .17 with Percentage of time worked; and .16 with Socioeconomic Index (see Table E.3).

PERSONALITY

Emotional Factors Inventory

Data reporting mean scores of subjects on the sub-tests, the intercorrelation of sub-test scores and their correlation with the criterion variables, and the sub-test scores as predictor variables for the three criterion variables are reported in Tables E.4 through E.8.

The mean scores approximate those reported by Bauman (1958) but the standard deviations for all sub-tests are considerably greater for subjects in this study. The intercorrelations of the sub-tests vary considerably with most being higher than those reported.

All sub-tests show a low negative correlation with the three criterion variables. The relationships of the sub-test scores used as predictor variables with the criterion variables are also low. The "attitudes toward blindness" sub-test was the best predictor variable for two of the three criterion variables and second best for the third (income).

Bell Adjustment Inventory

Mean scores of subjects on the four sub-tests, their intercorrelation and correlation with the criterion variables and sub-test scores used as predictor variables with the criterion variables are shown in Tables E.9 through E.13.

No data were available to compare mean scores of subjects in this study with the standardization population nor to compare the intercorrelations of the sub-tests. With the exception of Home and Social and of Health and Social, intercorrelations are fairly high. All sub-tests showed negative correlations with the criterion variables.

The relationships of the sub-test scores used as predictor variables with the criterion variables are low although somewhat higher than those reported for the Emotional Factors Inventory. Health was the best predictor variable for two of the three criterion variables and second best for the third (SEI).

Bernreuter Personality Inventory

Tables E.14 through E.18 report means and standard deviations, intercorrelations between the sub-tests and their correlation with the criterion variables, and the relationship of sub-test scores used as predictor variables with the criterion variables.

Mean scores of these subjects were below the percentile score of 50 on this scale for all three sub-tests with B2-S, the Measure of Self-Sufficiency, being the lowest (37.8). The intercorrelations between B1-N and B2-S and between B2-S and B4-D were identical with those reported by Bernreuter (1935); the correlation obtained in this study between B4-D and B1-N was -.77 compared with his -.80. It is of interest to note that the population for the Bernreuter data consisted of male engineering students.

The B1-N scale showed a low negative correlation with all three criterion variables; the other scales showed a positive correlation, with B2-S yielding a .38 with Income and .41 with SEI. The B2-S scale was the best predictor variable for all three criterion variables.

VOCATIONAL INTEREST TESTS

Kuder Preference Record

Tables E.19 through E.23 report means and standard deviations for the sub-tests, intercorrelations of sub-tests and their correlation with criterion variables, and the relationship between sub-test scores as predictor variables and the criterion variables.

Data concerning means and intercorrelations between sub-tests were not available in the Manual (Kuder, 1956). Data from subjects in this study show low coefficients of correlation between all sub-tests except two: the coefficient of correlation between mechanical and scientific was .56 and between computational and clerical, .38. All others were of lesser magnitude with a few low negative.

Correlations between the sub-tests and the criterion variables were in general low positive. The relationship of the sub-test scores as predictor variables with the criterion variables was likewise low with computational being the best predictor variable for Percentage of time worked and Income; Music was the best predictor variable for SEI.

Brainard Occupational Preference Inventory

Mean scores of subjects on the sub-tests, the intercorrelation of sub-tests and their correlation with the criterion variables, and sub-test scores used as predictor variables with the criterion variables are shown in Tables E.24 through E.28.

The mean scores of subjects in this study were lower than means reported by Brainard (1945). Comparisons were made with his data for males in grade 12. The standard deviations were relatively similar. It should be noted that variations may possibly be related to the number of employed females who are included in data from subjects in this study.

It was difficult to compare intercorrelation data with Brainard (1945) because data were given according to grade level and sex. In general the intercorrelations from subjects in this study followed the same pattern as those presented for males in grade 11. Coefficients of correlation varied greatly among the various sub-tests, however.

In general the correlations with the criterion variables were low except between SEI and professional, artistic, and scientific; and between Income and artistic. The artistic sub-test was the best predictor variable for Income and SEI; commercial was the best predictor variable for Percentage of time worked.

In general sub-tests of the Brainard were better predictor variables for the criterion variables than either the Kuder or the Lee-Thorpe.

Lee-Thorpe Occupational Interest Inventory

Data reporting mean scores of subjects on the sub-tests, the intercorrelation of sub-test scores and their correlation with the criterion variables, and the sub-test scores as predictor variables for the three criterion variables are reported in Tables E.29 through E.33.

Means scores from subjects in this study for all fields of interest except scientific were higher than those reported by the authors (Lee and Thorpe, 1956, p. 5); all three types of interests and the level of interest were lower for subjects in this study. All standard deviations were greater for subjects in this study. There was great variation between the intercorrelations obtained from subjects in this study and those reported by the authors (Lee and Thorpe, 1956, p. 9).

In general the correlations of the sub-tests with the criterion variables were low positive with some low negative correlations. The level of interest score was the best predictor variable for Income and SEI; the personal-social field of interest was the best predictor variable for Percentage of time worked.

VOCATIONAL APTITUDE

Data from the Minnesota Rate of Manipulation (turning and displacing), Crawford Small Parts Dexterity, and the Pennsylvania B-Manual (assembly and disassembly) are reported in Tables E.34 through E.36. All relationships to the criterion variables are very low.

SUMMARY

In general, data presented in this section show that results from any one single test probably have limited relationship with the eventual vocational success of this group of subjects. Since a wide variety of tests was used in all areas, it was not possible to combine test results into a battery that could then be used as predictor variables to the three criterion variables. Such a procedure might have yielded different results.

Re-Test Data

INTELLIGENCE

Table 4.16 reports data on the pre- and post-test results for the verbal scale of Wechsler-Belluvue I and II. The number of subjects who had the WAIS for both pre- and post-tests was 4; data from these subjects are not included. The N for the sub-tests is smaller because these data were not available for a all subjects.

It is of interest to note that the mean I.Q. of subjects on both measures increased. Sub-test means, with the exception of digit span on WB-II, also increased. However, correlations between pre- and post-sub-scales are relatively low. An analysis of characteristics of subjects who changed in either direction may shed some light on reasons for this.

The correlation between the Stanford-Kohs and WB-II was .48; for 138 subjects who had both measures, the mean of the Stanford-Kohs was 101.20 with a standard deviation of 17.69.

TABLE 4.16

PRE- AND POST-TEST RESULTS ON WB-I AND WB-II

N	Pre-Test		Post-Test		r
	Mean	S.D.	Mean	S.D.	
WB-I (N = 35)					
I.Q.	107.86	17.80	115.71	19.38	.91
Sub-Scales (N = 8)					
Infor.	15.13	4.05	16.50	3.74	.90
Comp.	14.25	2.55	15.88	2.30	.67
Digits	10.50	2.07	12.88	1.96	.51
Arith.	9.63	1.69	9.75	1.58	.39
Simil.	13.00	1.85	17.25	3.33	.42
Vocab.	23.75	7.05	26.63	8.60	.93
WB-II (N = 136)					
I.Q.	101.60	16.34	107.48	18.30	.89
Sub-Scales (N = 41)					
Infor.	15.76	5.00	18.78	6.19	.89
Comp.	12.71	3.58	12.98	3.93	.67
Digit	11.71	2.93	11.34	3.11	.75
Arith.	12.78	4.50	14.32	5.89	.68
Simil.	12.29	4.76	13.59	4.40	.86
Vocab.	25.83	5.03	28.29	7.22	.79

PERSONALITY

Table 4.17 reports the means and standard deviations on the pre- and post-test sub-tests of the Emotional Factors Inventory and the coefficient of correlations between the pre- and post-test results.

The post-test means on all sub-tests are lower than on the pre-tests. The standard deviation for all pre-tests sub-tests except somatic symptoms is greater than on the post-tests.

VOCATIONAL INTEREST

Table 4.18 reports data on the sub-tests of the Kuder Preference Record for pre- and post-tests and the coefficient of correlation.

TABLE 4.17

PRE- AND POST-TEST RESULTS OF THE EFI
N = 127

Sub-Test	Pre-Test		Post-Test		r
	Mean	S.D.	Mean	S.D.	
Sensitivity	11.27	5.07	8.23	4.27	.33
Som. Symp.	4.45	2.57	3.99	2.67	.31
Soc. Comp.	9.73	4.92	7.72	4.01	.47
Att. Dist.	6.43	3.88	4.81	2.77	.53
Inadeq.	8.22	4.65	4.51	2.48	.37
Morale	4.21	3.40	2.40	1.40	.13
Att. Blind.	9.34	5.06	7.52	3.38	.51
Valid.	3.95	2.24	3.38	1.93	.27

TABLE 4.18

PRE- AND POST-TEST RESULTS OF THE KUDER
N = 122

Sub-Test	Pre-Test		Post-Test		r
	Mean	S.D.	Mean	S.D.	
Mechanical	34.20	16.75	31.88	13.55	.61
Computational	24.97	8.99	25.58	9.38	.40
Scientific	32.89	12.43	33.10	10.52	.43
Persuasive	39.20	13.90	35.64	11.94	.40
Artistic	23.67	10.45	21.59	9.76	.37
Literary	22.89	10.76	23.24	9.48	.31
Music	16.35	7.26	17.13	8.52	.50
Soc. Serv.	49.16	15.78	53.36	14.92	.43
Clerical	45.70	13.65	42.32	14.29	.40

The mean scores went down on the post-test of four sub-tests, and up on five. The standard deviation was greater for three of the nine sub-tests.

Table 4.19 gives the mean sub-test scores and standard deviations of the *Personnel Research Center Interest Inventory* and their correlation with the *Kuder Preference Record* post-test. The *Kuder* does not include a scale for Outdoor.

TABLE 4.19

PRC INTEREST INVENTORY RESULTS
N = 161

Sub-Test	Mean	S. D.	r
Mechanical	17.42	8.49	.80
Computational	17.25	6.78	.61
Scientific	21.58	6.09	.59
Persuasive	19.23	7.28	.60
Artistic	15.36	6.56	.73
Literary	19.49	7.41	.62
Musical	19.55	8.54	.76
Soc. Serv.	22.26	7.19	.63
Clerical	18.85	7.31	.57
Outdoor	15.38	7.14	None

CHAPTER V

DISCUSSION AND IMPLICATIONS

Limitations of the Study

The results presented in the previous chapter raise more questions than they answer. Additional statistical analyses may be employed to answer some of these questions; other data collected but not included in this report should be analyzed; an intensive study of certain individual subjects and sub-groups should be made. The project directors are aware of these needs. However, limitations of time and financial resources on the conduct of this project demanded some closure at this point. It is anticipated that this will not be the last but rather the first in a series of reports. It is within this framework, then, that the results will be discussed.

A further caution should be noted. Most of the results presented in the previous chapter were derived from statistical analyses designed to show relationships. Measures of relationship do not necessarily mean that there is a cause-effect connection but rather that the two variables are related at a particular point in time. While cause-effect connection may be mistakenly inferred from measures of relationship, no such inferences are intended in this report. Additionally, the term "predictor variable" should not be interpreted as predicting any result but rather as delineating the independent variable, with the criterion variable being the dependent variable.

THE SAMPLE

Certain limitations of sample selection were noted in Chapter III. It is reasonable to assume that the population from which the interview sample was drawn may not be representative of the visually handicapped population in that age range. In general, the population consisted of a group who were known to some school or agency and who were referred for testing to one of the project directors by that school or agency. It is possible, therefore, that two groups may be missing from the population: (1) those among the visually handicapped youth who succeed independently and consequently never come to the attention of a special school or agency; and (2) those whom the school or agency chose not to refer for testing for some reason. In all probability these two groups would account for a very small number of the visually handicapped; however, the possibility of their omission from the population should be noted.

The population is probably representative of the visually handicapped youth who have never been employed and who come to a rehabilitation agency for assistance in entering the vocational world.

DATA COLLECTION

Some problems encountered in collecting complete initial data on the subjects from school and agency records were noted in Chapter III The impact of two in particular should be considered because of their relevance in interpreting the findings. These are the inadequate measures of visual functioning and the lack of an objective measure for degree of counseling.

The lack of a good measure of visual ability is one which could not be overcome and which does have important implications for interpreting the results obtained in this study. No data on visual acuity were available for a relatively small proportion of the interview subjects (4.2 percent); however, the data for the remaining subjects were taken from eye examinations which were given from 10 to 20 years prior to the interview (see Table A.5). Any deterioration or improvement in visual functioning during the interim could not be ascertained objectively since there were no recent eye examination reports available. In addition, restrictions in the field of vision and objective measures of near vision were generally not included in the available records of eye examinations. An attempt was made to overcome this problem by inferring a measure of functional vision from interview data (see Chapter IV). However, this measure is equally as subjective as the notation "no useful vision."

A further problem arose regarding the use of available data on vision of the subjects for data analysis. Measures of visual acuity were used as separate predictor variables (see Tables 4.4-4.6). While the correlation of vision in right eye with vision in left eye was relatively high (.69), additional analyses are necessary to determine more accurately the impact of best corrected vision in the better eye on the criterion variables.

The importance of visual functioning can be noted from differences found among the three comparison groups; Group C, the least successful, included more braille reading subjects than either of the other two groups (see Table A.6). Further, the tables reporting multiple regression analyses of predictor variables to the criterion variables showed the relative influence of visual factors considered singly, including age of onset in each eye, best corrected vision in each eye, and functional vision (see Tables 4.4-4.6). A multiple regression analysis using as predictor variables a single derived measure for both eyes on the age of onset and for both eyes on best corrected vision may yield a higher level of relationship for these visual factors.

Perhaps the most frustrating problem encountered during data collection was the inability to obtain objective information on counseling. The importance of counseling is implicit in most school and rehabilitation agency programs, and much time and effort are expended on this function. In addition, the initial project proposal included the intent to determine the effectiveness of counseling on subsequent vocational adjustment because this was considered an important variable from the outset. However, obtaining data that could be used to measure the effectiveness of counseling proved to be an insurmountable obstacle. There was no way to determine objectively the length or the intensity of counseling given to any subject, nor how test data were utilized during counseling, nor the kind of guidance and counseling provided by either school or agency to the subject. An attempt was made to determine the degree of counseling from the amount of money spent by the agency on the subject. This was not effective in many cases because records did not include a breakdown of how the money was allocated for various purposes.

As a compromise, a four-category scale was utilized for determining the degree of counseling; this was derived from a study of available data from schools and agencies, the subject's report of counseling he received, and the kind and length of the training paid for by the agency. The weakness of such a subjective measure is obvious but was the best that could be obtained under the circumstances. It is of interest to note that the correlation between degree of counseling and amount of money spent was -.03 (see Table E.2).

Data reported for the three comparison groups showed little difference among the groups on the measure of degree of counseling. The groups did differ in the relative amount of money spent on them, however, with the most successful having the greater amount spent (see Tables 4.11 and 4.12). While it may seem that this could be attributed to the greater number of college graduates in this group with more money being spent by the agencies on their further education, the correlation between level of education and amount of money spent was .23 (see Table E.2). The degree of counseling and amount of money spent were better predictor variables for the criterion variables of socioeconomic index and income than for percentage of time worked (see Tables 4.4-4.6). However, the correlation of each of these predictor variables to the criterion variables was low ranging from .02 (degree of counseling and percentage of time worked) to .20 (money spent and socioeconomic status) (see Table E.2). Difficulties in obtaining accurate data for both variables point to a need for a better measure of counseling and of the agency's financial investment in a subject. Had this been possible different results may have been obtained in the present study. The unavoidable inadequacy of the data collected on these variables probably cannot be overcome through the use of any different statistical procedures.

These problems identify the importance of record keeping for both schools and agencies. The study of clients after they leave a particular setting should be an integral part of the evaluation program for all schools and agencies. Adequate records therefore become essential. Experience in obtaining accurate data on a variety of important dimensions on subjects included in this study point out the many weaknesses in records currently being kept. If ongoing studies of the products of schools and agencies are to be built into their evaluation programs, then further study is needed to determine what should be recorded and how records can be most efficiently retained. Otherwise, valuable data cannot be retrieved for future needed research.

DATA ANALYSIS

Most problems arising from the data analysis can and will be resolved in future studies. Some recommendations regarding the application of additional statistical procedures are included in later sections of this chapter. There are two related to the study as a whole which will be discussed in this section.

Three criterion variables were selected for this study to determine "vocational success": socioceonomic index, percentage of time worked, and income. While the intercorrelation of these three variables (Table E.1) shows some overlap among them, the use of the three seemed to be a better measure of vocational success than attempting to use any one. The greatest weakness in utilizing them as the sole criterion variables arises from the omission of a measure of job satisfaction. How satisfied one is with one's occupation, the degree to which one feels he is underemployed or underpaid, and the relationship with other workers and one's employer are also important in determining vocational success. The interview included items to obtain such information but because of time limitations, a scale score derived from responses to these items could not be developed. It is hoped that this omission can be remedied in future studies.

The various subtests of the personality measures used with subjects in this study in general showed low negative correlations with the three criterion variables (see Tables E.5, E.10, and E.15). It is possible that measures more directly related to how an individual feels about himself may be productive in arriving at a meaningful evaluation of his employment potential. The role of the self-concept in vocational development has been delineated by Super (1949, 1957, 1963) and Holland (1959). The Interview included items designed to tap the subject's opinions about himself in relationship to other blind persons and in relationship to sighted persons on several dimensions. These data on subjects from one state were used as predictor variables during some preliminary analyses and meaningful results were obtained. However, some changes in the statistical procedures being utilized were necessary in order to use data from the total interview group. Time did not permit working through these problems but future plans call for more intensive study of the items relative to obtaining some measure of self-concept which can be used as a predictor variable. In addition, data from the Interview on other behavior and social dimensions need to be analyzed.

Against this background of limitations, the implications of the results presented in the preceding chapter will be discussed.

Variables Contributing to Success

GENERAL FINDINGS

Results from this study support the position that unemployment and underemployment are continuing problems for the visually handicapped. The rate of unemployment of males at the time of the interview (15.6 percent) was higher than for males from racial minority groups (8.4 percent). It is, however, lower than for the veteran group (Graham, 1968) or for the most recent of the follow-up studies reviewed in Chapter II (Cook, 1968). Data presented in Chapter IV comparing income of the subjects with U S. Census data lend further support to the relatively disadvantaged position in society this group of the handicapped hold.

The restricted range of occupations is a further factor; there were only 79 different jobs for males and 47 for females. For the males more than half (58.9 percent) were employed in 13 occupations; more than half the females (55.5 percent) were employed in nine occupations. Within the scope of this study it was not possible to determine how many were employed in occupations "typical" of the blind, i.e., home teachers, piano tuners, etc. Such an analysis can be made at a later date.

These findings give cause for concern. Vocational success would be expected in at least average intelligence (mean I.Q. of 103.7) and a relatively high educational level (75.1 percent of males and 80.7 percent of females had completed 12 or more years of schooling). It is probable that several factors are operative, including discrimination encountered in seeking employment, inadequate preparation for job placement, lack of creativity in expanding career opportunities. A number of recommendations might be made for both educators and rehabilitation counselors in order to overcome certain of these difficulties.

The comparison groups did differ significantly on their level of education (see Table A.10). All in the most successful group had completed high school compared with almost three-fourths of the least successful who did not finish the twelfth grade. Data concerning years in residential school and years in public school must be interpreted with some caution since it was not known whether public school meant regular classes or special classes in a public school setting. However, data from the comparison groups on this dimension show some interesting differences (see Tables 4.9 and 4.10). There seemed to be less movement between the residential and day programs among the most successful group; further, a greater percentage spent no time in a residential setting.

At least two questions may be raised concerning these data. In theory, movement from one educational setting to another may mean that the best placement is being selected for a particular pupil's needs during different periods in his life. However, it may also mean that pupils are transferred back and forth from one setting to another in an attempt to eliminate a problem.

A second question might be asked concerning whether success comes from more years of education in a public school setting. Again, in theory it would seem a public school placement provides more opportunities for pupils to arrive at a more realistic appraisal of themselves and also to profit from competition with sighted peers with whom they will be spending their adult years; however, the most successful group also had better vision (Table A.6) and fewer additional disabilities (Table A.7). These factors may have greater relevance in attaining vocational success than the educational setting.

Additional research on various aspects of educational programs would be needed to answer some of these questions. The Interview did include items designed to attain a rough evaluation of the subject's perception of different aspects of his schooling. These data will be analyzed for future reports.

The limited occupational range for the subjects in this study would seem to show that rehabilitation workers should direct their efforts toward exploring different occupations for the blind and to move out of the "traditional" types of occupations. Further, job placement is undoubtedly complicated by discrimination toward the visually handicapped. Efforts of all schools and agencies will be necessary to increase the acceptance of qualified handicapped persons in the world of work.

RELATIVE IMPORTANCE OF PREDICTOR VARIABLES

Data from the multiple regression analyses show that I.Q. was the most important predictor variable for all three criterion variables. This finding is consistent with other studies (Bauman and Yoder, 1966; Suinn, et al., 1967; Knowles, 1969). The I.Q.s of subjects as shown in Table A.15 follow a fairly normal distribution curve with 18.7 percent below 90. Experience of both educators and rehabilitation counselors suggests that those visually handicapped with I.Q.s below normal should be considered as having another disability. The data analysis on the three comparison groups did not include a comparison on I.Q. However, the least successful group did have more other disabilities (Table A.7) and a lower level of education (Table A.10). The correlation between other disabilities and I.Q. was -.18 and between other disabilities and level of education, -.10 (see Table E.2). It is probable that this least successful comparison group would also have the lower I.Q.s.

Scott (1969) suggests that the multiply handicapped blind are screened out by the blindness system and are found among the unserved blind. It is possible that workers in rehabilitation agencies for the blind do not feel competent to handle the problems of the multiply handicapped because little is known about their special needs. An intensive study of factors related to success in a visually handicapped mentally retarded population may lead to the development of more effective rehabilitation practices for this particular group. The rubella population now entering school programs represent a group with multiple impairments. Research to improve practices may be helpful when they become clients of rehabilitation agencies 10 to 20 years hence.

The need to look at visual factors as a whole was mentioned above. A large percentage of the subjects (16.3 percent) do not meet the legal definition of blindness, that is, 20/200 or less in the better eye with correction (see Table A.5). Data from this group compared with the legally blind group may also lead to different results. Further, it may be interesting to compare subjects who lost their vision prior to the age of five with those who lost vision after that age. It is anticipated that such comparisons can be made and reported in the future.

Since level of education proved to be an important predictor variable, a comparison of those who finished high school or less with those who had at least one year of college may yield differences. It is possible that different practices may need to be employed by agencies in working with the college-bound as compared with the non-college bound.

In addition to the above comparisons, analyzing data from the subjects by state may also be useful. Such an analysis would necessitate studying rehabilitation practices in each state in order to interpret similarities or differences that may be found.

The Use of Test Results

A battery of tests had been administered to all subjects included in this study. For each subject, results from measures of intellectual, personality, vocational interest, and vocational aptitude were therefore available. Three professionals had seen these subjects and each used a different set of tests; in addition, with the passage of time, each changed tests from time to time. Since different measures were available for each subject, it was not possible to use a battery of test scores as predictor variables for data analysis within the time limits of this study. Consequently, sub-test scores from each measure were used as individual predictor variables. The exception was intelligence measures where only I.Q. was used.

In general, the sub-test scores were not significant as predictor variables. Vocational interest tests were slightly superior to measures of personality, but none could be considered outstanding. Much more remains to be done with these data before any conclusions can be drawn, however.

The use of tests in the counseling setting is commonly justified on the basis that they provide a source of input for the professional to utilize as he works with a client. The individual test scores become submerged as the counselor makes a clinical judgment using single tests, the emerging pattern from all the tests employed, and subjective observation of the client both in the formal test situation and the less formal interview. It was not possible to obtain such a measure on subjects in this study. First, the clinical prognosis would need to be made at the time of the original testing on some objective scale. Since the project directors had access to the results of interviews as they were being conducted, any review of the old records and post hoc prediction on a recently developed scale might be contaminated with knowledge of the current status of the subjects. In addition, there is research evidence that great variability exists between counselors in making predictions about clients (Bolton, et al., 1968). It would therefore not be scientific to pool judgments from three persons, and subjects could not be rated by all three. For these reasons, counselor prediction based on a clinical judgment was not included within the scope of this study.

Within this context, it is of interest to recall the prior discussion concerning difficulties in obtaining data on degree of counseling. It would be reasonable to assume that if test results were utilized by a counselor for guidance and vocational counseling, subjects would discuss such information during the interview. This did not seem to be the case because in general, relatively little was described by the subjects during the Interview regarding test interpretation. While it is possible that the subject may have forgotten details of any counseling sessions, it is also possible that little use was made of the test results during counseling. There is another factor that may be operating as well. None of the project directors is involved in long term counseling with clients. Instead all administer tests on referral from schools or agencies and pass on results of their testing to counselors in the school or agency. There may be some merit in having one person perform testing and counseling; greater utilization of test results may come from such a practice.

In this study, the use of biographical information as predictor variables seemed productive. Sex, level of education, parents' socioeconomic index, marital status, travel ability, all tended to be significant for the criterion variables. It would seem then that the development of a biographical inventory may be useful for rehabilitation counselors. There is some support for the superiority of such biographical data over clinical predictions of counselors (Bolton, et al.). Further research would be needed to determine what data would be most relevant to include in such a measure.

The retest portion of the study revealed some interesting findings that need additional exploration. The better mean scores on the measures of intelligence and the Emotional Factors Inventory suggest that changes have taken place in these subjects during their adult life. Data on other variables comparing those subjects who improved with those who did not may uncover some useful information that will suggest more effective diagnostic and remedial procedures that can be employed early in the client's rehabilitation.

Summary

Findings included in this report should be considered tentative and preliminary. Data need to be explored in other ways; single measures should be developed for such variables as onset of visual impairment, degree of vision, and self-concept, from the several relevant items obtained during the *Interview*. Additional research and demonstration projects should be designed to develop new and more useful instruments for evaluating clients, for improving practices within schools and agencies that will lead to better vocational adjustment, and for developing new methods of record keeping and retention that will make future follow-up studies more useful as a means for evaluating school and agency programs.

CHAPTER VI

SUMMARY

Currently society is directing efforts toward achieving the ideal of equal opportunities in education and employment for all its members. For certain groups, such as the visually handicapped, this ideal is far from reality. The rate of unemployment and continuing problem of underemployment among the visually handicapped are known to be more serious than in the normal population. If the objective of full employment for the visually handicapped is to be realized, then reasons for the barriers to employment must be identified. The purpose of this project was to examine factors that seem to be related to vocational success in a group of visually handicapped in an attempt to identify reasons for lack of employment to their full potential.

The population included subjects who met these criteria: a visual impairment of sufficient severity to be eligible for special education and/or vocational rehabilitation in their state of residence; visual impairment acquired prior to entrance into the employment market; availability of test data, including measures of intelligence, personality, vocational interest, and vocational aptitude, administered during late adolescence; tests given roughly between the years 1948 and 1958. This population included 939 subjects from five different states. From this population, a sample of 644, including all who could be located, was interviewed either by telephone or in person. From the interview sample, a sub-sample of 207 subjects received a battery of tests including some of the same measures administered during the initial testing and some new measures.

The following summarizes the description of the sample:

1. At the time of the interview the age range was from 23 to 42 with 66.8 percent 30 or over.

2. There were more males than females.

3. More than three-fourths of the subjects lost their vision prior to the age of five.

4. More than half of the subjects did not have sufficient vision to utilize large print effectively.

5. The mean I.Q. of the subjects was slightly above average.

Two instruments were developed for the study. The Case History Data was designed to record information on subjects from school and agency records; these data included: personal data, family background, type of schooling, kind and type of post-high school education, agency history, and test data. The Interview was designed to obtain information concerning the subject's current status; the data requested included: family and personal information, employment history, sources of income other than principal job, opinions on education, travel ability, degree of counseling, participation in social and community activities, recreational interests, attitudes toward self, general health, and mannerisms. The retest instruments included measures of intelligence: the Wechsler Adult Intelligence Scale, Wechsler-Bellevue I or II depending on what had been administered initially, and the Stanford-Kohs; personality: the Emotional Factors Inventory and the Hardy Anxiety Scale; vocational interest: the Personnel Research Center Interest Inventory and either the Kuder Preference Record or the Lee-Thorpe Occupational Interest Inventory, depending on which was administered initially. No measures of vocational aptitude were included in the retest battery.

The data from the Case History Data were recorded directly from school or agency records by research assistants following a set of instructions prepared for this purpose. The Interview was completed by trained interviewers either in person or by telephone if the subject had moved from the immediate geographical area. Retests were administered by one of the project directors or a qualified psychometrician.

Items on the Case History Data and the Interview and results from the retests were coded and data punched on cards. Programs were computed on the Michigan Terminal System of The University of Michigan Computing Center on an IBM 360 Model 67-2. Most of the data were analyzed by the Blitz Program for bivariate frequency and percentages and statistics and the University of California BMD 02R Stepwise Regression Program.

The following statements summarize general descriptive data from this study:

1. At the time of the interview, 15.6 percent of the males and 54.3 percent of females were not employed; unemployed females included housewives.

2. During 1968, 87 percent of the subjects earned less than $8000 from their principal job and 77.0 percent had a total income, including income of spouse, of less than $8000; the median income for the U. S. during 1967 was $8400.

3. The range of occupations was relatively restricted, with males engaged in 79 different occupations and females in 47 different occupations; more than half the males were employed in 13 occupations and more than half the females in nine occupations.

4. Approximately two-thirds of the subjects were employed in occupations classified according to the socioeconomic index at the level of cashiers or lower.

Three criterion variables were adopted for purposes of describing vocational success. These were: percentage of time worked since leaving school; income of present or last job; socioeconomic index of present or last job. The following predictor variables were selected: sex, vision (age of onset and degree of vision for each eye, functional vision); other disabilities; marital status; degree of counseling; amount of money spent by agency on subject; education; I.Q. on Wechsler Bellevue I or II; travel ability; socioeconomic index of parents; number of moves as a measure of geographical mobility. The following statements summarize the results of the multiple regression statistical analysis:

1. Wechsler-Bellevue I.Q., travel ability, sex, level of education, and other disabilities were the significant predictor variables for the criterion variable of percentage of time worked.

2. Wechsler-Bellevue I.Q., sex, functional vision, married, other disabilities, level of education, and extent of counseling were the significant predictor variables for income.

3. Wechsler-Bellevue I.Q., level of education, other disabilities, money spent, sex, and travel ability were the significant predictor variables for the criterion variable of socioeconomic index.

Sub-test scores from the measures for intelligence, personality, vocational interest, and vocational aptitude were used as predictor variables for the three criterion variables. The following summarizes results from these analyses:

1. Intelligence tests: coefficients of correlation with socioeconomic index, percentage of time worked, and income were .56, .42, and .28; correlations of the Non-Language Learning test for income, percentage of time worked and socioeconomic index were .24, .17, and .16.

2. Personality: multiple Rs for the Emotional Factors Inventory sub-test scores were .15 on attitudes toward blindness with percentage of time worked; .11 for sensitivity and income; and .22 on attitudes toward blindness and socioeconomic index. Multiple Rs for the Bell Adjustment Inventory were: .22 between the health scale and percentage of time worked; .32 between health and income; .33 between the emotional scale and socioeconomic index. Results of the Bernreuter were: .14 between the B2-S and percentage of time worked; .37 between B2-S and income; .40 between B2-S and socioeconomic index.

3. Vocational Interest: for the Kuder Preference Record a multiple R of .11 between computational and percentage of time worked and .18 between computational and income, .18 between music and socioeconomic index; Brainard Occupational Preference Inventory: .33 between commercial and percentage of time worked, .42 between artistic and income, .62 between artistic and socioeconomic index; Lee Thorpe: .27 between personal-social and percentage of time worked, .25 between level of

interests and income, .37 between level of interests and socioeconomic index.

4. Vocational Aptitude: for the Minnesota Rate of Manipulation, .13 between turning and percentage of time worked; .12 between turning and income; .08 between displacing and socioeconomic index; Crawford Small Parts Dexterity Test, .10 with income, .07 with percentage of time worked, and .03 with socioeconomic index; Pennsylvania Bi-Manual, .16 between assembly and income, .18 between assembly and percentage of time worked, and .12 between assembly and socioeconomic index.

Three comparison groups with varying levels of success were identified from the interview group. Group A (N = 24) included those highest on percentage of time worked, income, and socioeconomic index; Group B (N = 31): high on percentage of time worked and low on income and socioeconomic index; Group C (N = 27): lowest on percentage of time worked, income and socioeconomic index. In general, subjects in Group C had poorer vision; a greater number of other disabilities reported; lower educational level and socioeconomic index for parents; less agency money invested in them; poorer travel skills; more with no time in day school programs; almost three-fourths had not completed the twelfth grade compared to all in Group A who had finished high school. The degree of counseling was approximately the same for all three groups.

On the basis of findings from this study the following recommendations were presented:

1. There is a need for vocational rehabilitation agencies to explore a greater variety of career opportunities in order to expand the options available to the visually handicapped.

2. There is a need for early and adequate identification of the appropriate type of educational setting for pupils especially those with other disabilities, in order to reduce the movement between settings which may contribute to early drop-outs.

Results from this study are incomplete and additional data analyses should be undertaken:

1. Data from the following should be compared: legally blind vs not legally blind; high school graduates and below vs college or more; I.Q. below 90 and above 90.

2. A measure of job satisfaction should be developed and used as a criterion variable.

3. A measure of self-concept including flexibility should be developed and used as a predictor variable.

4. A more accurate measure of visual functioning should be developed.

5. All available test data viewed within a constellation should be used as a predictor variable.

The following additional research needs were identified:

1. There may be merit in the development of an instrument that would utilize biographical data from the subject.

2. Record keeping of schools and agencies should be improved; the application of a systems approach to evolving a better system may be productive.

3. There may be merit in further investigation of the relative merits of statistical and clinical predictions.

APPENDIX A

DEMOGRAPHIC DATA ON SUBJECTS

TABLE A.1

SEX OF SUBJECTS

	Total		Interview		Comparison					
					A		B		C	
	N	%	N	%	N	%	N	%	N	%
Male	592	63.1	410	63.7	21	87.5	20	64.5	23	85.2
Female	343	36.5	234	36.3	3	12.5	11	35.5	4	14.8
N. R.	4	0.4	0	0	0	0	0	0	0	0
Total	939	100.0	644	100.0	24	100.0	31	100.0	27	100.0

TABLE A.2

RACE OF SUBJECTS

	Total		Interview	
	N	%	N	%
Caucasian	717	76.4	590	91.6
Negro	60	6.4	49	7.6
Other	3	.3	3	.5
N. R.	159	16.9	2	.3
Total	939	100.0	644	100.0

TABLE A.3

BIRTHYEAR OF SUBJECTS

Year of Birth	Total		Interview		Comparison Groups					
					A		B		C	
	N	%	N	%	N	%	N	%	N	%
1926	1	.0	1	.1						
1927	9	1.0	5	.8						
1928	17	1.8	13	2.0						
1929	30	3.2	20	3.1	1	4.0	3	10.0		
1930	34	3.6	25	3.9			2	6.0		
1931	49	5.2	33	5.1	1	4.0			1	4.0
1932	42	4.5	30	4.6	1	4.0	1	3.0	2	7.0
1933	49	5.2	41	6.3	1	4.0	1	3.0	4	15.0
1934	56	6.0	47	7.3	2	8.0	2	6.0	1	4.0
1935	75	8.0	56	8.7	2	8.0	3	10.0	3	11.0
1936	67	7.1	43	6.6	4	17.0	2	6.0	2	7.0
1937	79	8.4	58	9.0	2	8.0	1	3.0	2	7.0
1938	72	7.7	60	9.3	4	17.0			1	4.0
1939	73	7.8	58	9.0	1	4.0	1	3.0	4	15.0
1940	68	7.2	45	6.9	4	17.0	4	13.0	2	7.0
1941	60	6.4	41	6.3	1	4.0	6	19.0	1	4.0
1942	37	3.9	23	3.5			1	3.0	1	4.0
1943	42	4.5	32	5.3			2	6.0	2	7.0
1944	15	1.6	12	1.6			2	6.0	1	4.0
1945	1	.0	1	.1						
N.R.	63	6.7								
Total	939		644		24		31		27	

TABLE A. 4

AGE OF ONSET (RIGHT vs LEFT EYE) FOR INTERVIEW SUBJECTS

Left Eye Age	Right Eye Age								
	N. R.	Up to 6 mo	7 to 12 mo	13 mo to 2 yr	2 to 3 yr	3 to 5 yr	5 to 10 yr	10 to 15 yr	15 yr on up
N. R.	28	2	1			1		1	
Up to 6 mo	2	473				1	2		
7 to 12 mo			8						
13 mo to 2 yr		1		7					
2 yr to 3 yr					13				
3 yr to 5 yr		1				17			
5 yr to 10 yr		2					31	1	
10 yr to 15 yr		1	1			1	1	28	1
15 yr on up				1				2	16

TABLE A.5

BEST CORRECTED VISION IN BOTH EYES FOR INTERVIEW SUBJECTS

Left Eye Age	Right Eye Age									
	N. R.	20/20-20/70	20/80-20/160	20/200-20/320	20/400-20/1000	20/1250-20/4000	Count Fingers	Perceive Hand Movement	Light Perception Only	Totally Blind
N. R.	27			2					2	3
20/20-20/70		13	6	3	1			1		2
20/80-20/160		2	19	5	1				1	1
20/200-20/320		2	3	134	12	2	1	1	7	13
20/400-20/1000		1		10	74	2			5	5
20/1200-20/4000		1	1	2	5	8				2
Count Fingers				5	1		17	3	1	5
Perceive Hand Movement				2			2	13	2	1
Light Perception Only		2		5	2	2	1	3	40	15
Totally Blind	2	4	1	8	13		2	2	22	88

TABLE A.6

FUNCTIONAL VISION OF SUBJECTS

Type of Print	Interview				Comparison Groups											
					A				B				C			
	Males		Females		Males		Females		Males		Females		Males		Females	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
N.R.	9	2.2	7	2.9	1								1			
Ordinary	90	22.0	44	18.8	6	30.0	1	33.0	4	20.0	2	18.0	4	18.0	1	25.0
Ordinary with magnification	100	24.4	57	24.4	4	20.0	0		7	35.0	2	18.0	4	18.0	0	
Large	13	3.2	11	4.7	1	5.0	0		1	5.0	1	9.0	1	5.0	0	
Large; prefers Braille	42	10.2	31	13.3	3	15.0	2	67.0	1	5.0	2	18.0	1	5.0	1	25.0
Braille	156	38.0	84	35.9	6	30.0	0	___	7	35.0	4	36.0	12	55.0	2	50.0
Total	410		234		21		3		20		11		23		4	

TABLE A. 7

OTHER DISABILITIES OF SUBJECTS

	Speech	Hearing	Cerebral Palsy	Orthopedic	Epilepsy	Allergies	Cardiac	Neurological	Emotional	Other	Total
Interview											
Male	26	28	7	13	15	12	7	52	12	14	185
Female	8	5	7	14	4	10	8	35	10	4	104
Comparison											
A	1	1	0	0	0	0	0	0	0	0	2
B	3	1	1	3	3	0	0	5	2	0	18
C	3	3	2	1	3	2	1	7	5	0	27

TABLE A. 8

EDUCATIONAL LEVEL OF SUBJECTS' FATHERS

	N. R.	6th Grade and Under	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade	1 yr College	2 yr College	3 yr College	4 yr College	B. A.	M. A.	Ph. D.
Interview	92	161	40	100	17	47	22	105	14	19	5	8	9	2	3
Comparison															
A	1	3	2	0	2	3		7	1	3			1		
B	0	7		6	1	5	1	7			1				
C	6	3	2	2	2		1	7	1			1	1		1

TABLE A.9

EDUCATIONAL LEVEL OF SUBJECTS' MOTHERS

	N. R.	6th Grade and Under	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade	1 yr College	2 yr College	3 yr College	4 yr College	B. A.	M. A.	Ph. D.	Other Professional Degree
Interview	59	131	25	119	33	52	34	131	24	25	2	3	2	2	0	1
Comparison																
A		1		1	2	4	1	6	1	4		1	1			
B	2	5		8	1	3	2	8	2							
C	4	5	1	2	1	4	1	7						1		

TABLE A.10

EDUCATIONAL LEVEL OF SUBJECTS

	N. R.	6th Grade and Under	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade	1 yr College	2 yr College	3 yr College	4 yr College	B. A.	M. A.	Ph. D.	Other Professional Degree	Total
Interview																	
Male	1	25	5	24	13	19	20	170	12	11	2	5	49	44	7	3	403
Female	0	10	6	8	6	9	7	127	5	6	1	3	27	15	1	2	232
Comparison																	
A								2		1			7	9	1	4	24
B		2		1			3	20		2		1	2				31
C		8		4	2	3	2	6				1	1				27

TABLE A. 11

SOCIOECONOMIC INDEX OF PARENTS OF SUBJECTS*

	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	Total
Interview	121	216	46	74	41	47	33	35	22	8	644
Comparison											
A	1	3	2	6	2	2	4	2	1	1	24
B	7	13	2	1	3	3	1		1		31
C	7	6		4		5	1	2	2		27

*See Reiss (1961).

TABLE A. 12

RELIGION OF SUBJECTS WHILE IN SCHOOL

	N. R.	Major Prot. Sect.	Minor Prot. Sect.	Catholic	Jewish	Other	None
Interview	21	334	65	191	16	2	15
Comparison							
A	2	12	1	8	1		
B	1	16	3	10	1		
C	5	14	4	3			

TABLE A. 13

YEARS IN RESIDENTIAL AND DAY SCHOOLS OF INTERVIEW SUBJECTS

Residential	Day School															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	3		1	1	1	6	3	3	13	12	22	11	123	42	6	4
1					1				2	1	1	4		1		
2	1		1	1			1	1	3		12	7				
3	1					1		2	3	9	8	2				
4	1			1		1	2	4	9	2	1	1				
5	2			1	1	2	3	9	8							
6	6	1		3	4		8	6	4	1						
7	2		2	2		7	7	2	1							
8	4	1	1	1	9	2	3									
9	2	2	1	7	3	2		1								
10	6	1	8	7	4	2										
11	6	6	10	4												
12	46	9	6													
13	45	4														
14	12	1														
15	7															

TABLE A. 14

MARITAL STATUS OF SUBJECTS

	Single	Married Once	Divorced & Remarried	Divorced & Single	Separated	Widowed & Remarried	Widowed & Single	N. R.	Total
Interview									
Male	170	202	11	5	4	3	6	9	410
Female	81	125	7	5	5	1	3	7	234
Comparison									
A	4	19	1						24
B	19	8	1				2	1	31
C	22	4		1					27

TABLE A.15

WECHSLER BELLEVUE I.Q. SCORES OF SUBJECTS

	Total		Interview	
	N	%	N	%
50- 54	6	.6	3	.5
55- 59	8	.9	4	.6
60- 64	13	1.4	4	.6
65- 69	21	2.2	14	2.2
70- 74	19	2.0	13	2.0
75- 79	38	4.0	22	3.4
80- 84	51	5.4	28	4.3
85- 89	52	5.5	33	5.1
90- 94	80	8.5	53	8.2
95- 99	97	10.3	70	10.9
100-104	88	9.4	61	9.5
105-109	135	14.4	90	14.0
110-114	92	9.8	64	9.9
115-119	94	10.0	72	11.1
120-124	60	6.4	47	7.3
125-129	48	5.1	41	6.4
130-134	18	1.9	13	2.0
135-139	10	1.1	7	1.1
140-144	4	.4	4	.6
145-149	0	.0	0	.0
150-154	1	.0	1	.2
N.R.	4	.4		
Total	939		644	

APPENDIX B

INSTRUMENTS USED IN THE STUDY

B 1.1. CASE HISTORY DATA: FORM

1. Agency case no.____________________Coding case no.____________________

2. Birthdate____

Mo.		Date		Year	
2	3	4	5	6	7

3. Sex: Male (1) Female (2). . . . . $\boxed{8}$

4. Race: Caucasion (1), Negro (2), Other (3). . . . . $\boxed{9}$

5. Religion. . . . . X $\boxed{10}$
(If denomination not given, please mark with X)

Denomination

Protestant (major sect) ____________________(1)
Protestant (minor sect) ____________________(2)
Catholic ____________________(3)
Jewish ____________________(4)
Other (specify) ____________________(5)
None ____________________(6)
Not given ____________________(7)

6. At time of leaving high school:

Address____
City________________________State____________

7. Name of head of above household:

____

8. Living with:. . . . . $\boxed{11}$

Both parents	1
Mother only	2
Father only	3
Parent and step parent	4
Other person or family	5
Other (e.g., inst.)	6

9. Socioeconomic index of parents. . . . . X $\boxed{12}$

10. Siblings:

Number of older female siblings. . . . . | 14 | 15 |

Number of older male siblings. . . . . | 16 | 17 |

Number of younger female siblings. . . . . | 18 | 19 |

Number of younger male siblings. . . . . | 20 | 21 |

Number of same age female siblings (twins, triplets, etc.) . . | 22 |

Number of same age male siblings (twins, triplets, etc.) . . . | 23 |

11. Number of family members who have major visual handicaps. (Do not write anything if answer is unknown.)

Older female siblings. . . . . | 24 | 25 |

Older male siblings. . . . . | 26 | 27 |

Younger female siblings. . . . . | 28 | 29 |

Younger male siblings. . . . . | 30 | 31 |

Same age female siblings (twins, etc.) . . . . | 32 |

Same age male siblings . . . . | 33 |

Mother . . . . | 34 |

Father . . . . | 35 |

Spouse . . . . | 36 |

Children (male). . . . . | 37 | 38 |

Children (female). . . . . | 39 | 40 |

Other blood relatives. . . . . | 41 | 42 |

12. Education of parents (last grade completed)

Father_______________. X | 43 | 44 |

Mother_______________. X | 45 | 46 |

13. Occupations:

Father____ X | 47 | 48 | 49 |

Mother____ X | 50 | 51 | 52 |

Head of household (if other than father or mother)
____ X | 53 | 54 | 55 | 56 |

Sex of head of household (if other than father or mother)
Male__________Female_______

14. Case (subject) under study, through high school:

Year of graduation (or year should have graduated). 57 58

Years in public school, special class or regular class. . . . 59 60

Years in residential school 61 62

Years in other settings (specify)__________ . . . X 63 64

____

Name of high school last attended

____

City State

15. Vision (if the same information is given for both eyes, please record data for right eye only)

Date of examination__________. . .X 65 66 67

Right Eye (O.D.)

Age of onset__________. . . . . .X 68

Type of onset__________. 69

Gradual (1)
Traumatic (2)
Unknown (3)

Etiology:__________

__________X 70 71

Diagnosis:__________

____

__________X 72 73

Vision: with correction (record all relevant information):

__________X 74

__________X 75 76 77 78 79 80

Left Eye (O.S.)

Age of onset__________. . . . . .X 2

Type of onset__________. 3

Gradual (1)
Traumatic (2)
Unknown (3)

Etiology:__________

__________X 4 5

Diagnosis:____

____

____X 6 7

Vision: with correction (record all relevant information)

____X 8

Both Eyes (consider together)

Prognosis:____

____X 9

16. Other disabilities

Check those disabilities which are mentioned in the record. If severity is listed, record that in the space provided. (Note: "Poor speech" and "poor hearing" are synonymous with "speech defect" and "hearing handicap" and are not a statement of severity.)

Check	Disability	Severity	
_____	Speech	______________________________	X 10
_____	Hearing	______________________________	X 11
_____	Cerebral palsy	______________________________	X 12
_____	Orthopedic	______________________________ (e.g., polio)	X 13
_____	Epilepsy	______________________________ (e.g., convulsions)	X 14
_____	Allergies	______________________________	X 15
_____	Cardiac	______________________________	X 16
_____	Emotional	______________________________	X 17
_____	Neurological	______________________________	X 18
_____	Other (specify)	______________________________	X 19

17. Vocational interests expressed by subject while in high school:

____

How consistent were the subject's vocational interests with the subject's present occupation? . . . . X 20 21

18. Vocational recommendations made by the high school:

____

How consistent were the school's vocational recommendations with the subject's present occupation? . . . . X 22 23

19. Degree of counseling: . . . . .X $\boxed{24}$

Name of Counselor	Title	Agency	Dates	No. Times Seen	Purpose	Results

20. File weight (Michigan only). X $\boxed{25|26}$

21. Money spent on subject by agency . . . . X $\boxed{27|28}$

Amount for following:

a. Tuition (include room and board)__________
b. Reader service__________________________
c. Counseling and||or psychotherapy__________
d. Medical and surgical_____________________
e. Books and equipment_____________________
f. Transportation__________________________
g. Miscellaneous___________________________
h. Total__________________________________

22. College:

Number of years____ X $\boxed{29|30}$

Highest degree earned (check):

___B.A.
___M.A.
___Professional
___Ph.D./Ed.D.
___Other (specify)

Major at time of completing college education:

____ X $\boxed{31|32}$

College: (Name)____
(State)____ X $\boxed{33}$

23. Other training after high school:

Type of Training	No. of Years	
		X 34 35
		X 36 37
		X 38

24. Addresses since leaving high school (do not write address at time of leaving high school):

Street	City	State	Type of Residence (home, apt., etc.)

Number of moves since leaving high school:
(Number of addresses listed above). 39

25. Marital status________________

If married, present name______________________________

TEST RESULTS

Notes

1. If the same form of the same test was administered more than once, use the last results.

2. In most cases, the scores that go in the boxes will be raw scores or time.

3. If you do not have the required score do not write in the boxes. If you have other kinds of scores (e.g., standard) write them in the space provided.

4. Notice that the boxes which require time are X boxes and you do not write in them, even though those boxes are labeled time in seconds, you may write time in the most convenient form for you in the blank provided.

Percentile Standard Raw Score

26. Intelligence tests:

Hayes Binet

I.Q. . . . . [40|41|42]

Chronological age______ . . . . X [43|44|45]

Examiner____

Wechsler Bellevue I

Verbal I.Q.. . . . . [46|47|48]

Performance I.Q. . . . . [49|50|51]

Full scale I.Q.. . . . . [52|53|54]

Chronological age______ . . . . X [55|56|57]

Examiner____

Wechsler Bellevue II

Verbal I.Q.. . . . . [58|59|60]

Performance I.Q. . . . . [61|62|63]

Full scale I.Q.. . . . . [64|65|66]

Chronological age______ . . . . X [67|68|69]

Examiner____

Percentile Standard Raw Score

W.I.S.C.

Verbal I.Q.. . . . . 70 71 72

Performance I.Q. 73 74 75

Full scale I.Q.. . . . . 2 I D Num ber 2 3 4
76 77 78 79 80

Chronological age______ . . . . X 5 6 7

Examiner________________________________

W.A.I.S.

Verbal I.Q.. . . . . 8 9 10

Full scale I.Q.. . . . . 11 12 13

Chronological age______ . . . . X 14 15 16

Examiner________________________________

Stanford Binet (L or M)

I.Q. 17 18 19

Chronological age______ . . . . X 20 21 22

Examiner________________________________

27. Personality tests

Bell Adjustment Inventory

Home. 23 24

Health. 25 26

Emotional 27 28

Social. 29 30

Date____________________ . . . . X 31 32 33

Examiner________________________________

Emotional Factors Inventory

Sensitivity 34 35

Somatic symptoms. 36 37

Social competency 38 39

Attitudes of distrust 40 41

Feelings of inadequacy. 42 43

	Percentile	Standard	Raw Score
Morale			44 45
Attitudes re: blindness			46 47
Validation			48 49
Date______________			X 50 51 52

Examiner____

Bernreuter
(Note: These scores are usually given in percentile. If you have other types of scores, record in space other than the boxes.)

	Raw	Standard	Percentile
B1-N			53 54
B2-S			55 56
B4-D			57 58
F1-C			59 60
F2-S			61 62
Other (specify)			63 64
Other (specify)			65 66
Other (specify)			67 68
Date______________			X 69 70 71

Examiner____

28. Vocational interest tests

Kuder

		Raw Score
Mechanical		72 73
Computational		74 75
Scientific	3 I D Num ber 76 77 78 79 80	2 3
Persuasive		4 5
Artistic		6 7
Literary		8 9
Music		10 11
Social service		12 13
Clerical		14 15

Raw Score

Date________________ . . . . X 16 | 17 | 18

Examiner____

Lee Thorpe

(Fields of interest)

Personal-social . . . . 19 | 20

Natural . . . . 21 | 22

Mechanical. . . . . 23 | 24

Business. . . . . 25 | 26

Arts. . . . . 27 | 28

Sciences. . . . . 29 | 30

(Types of interest)

Verbal. . . . . 31 | 32

Manipulative. . . . . 33 | 34

Computational . . . . 35 | 36

Level of interest . . . . 37 | 38

Date______________ . . . . X 39 | 40 | 41

Examiner_____________________________________

Brainard occupational preference

Percentile   Standard   Raw Score

Commercial. . . . . 42 | 43

Personal service. . . . . 44 | 45

Agriculture . . . . 46 | 47

Mechanical. . . . . 48 | 49

Professional. . . . . 50 | 51

Aesthetic . . . . 52 | 53

Scientific. . . . . 54 | 55

Date______________ . . . . X 56 | 57 | 58

Examiner_____________________________________

29. Aptitude tests

Time — Best Time in Seconds

Minn. rate of manipulation

Displacing __________ . . . . X |59|60|61|62|

Turning __________ . . . . X |63|64|65|66|

Date __________ . . . . X |67|68|69|

Examiner __________

Penn. bi-manual dexterity

Assembly __________ . . . . X |70|71|72|73|

Disassembly | | | 4 | I | D | Num | ber | . . . X | 2 | 3 | 4 | 5 |

74 75 76 77 78 79 80

Date __________ . . . . X | 6 | 7 | 8 |

Examiner __________

Crawford small parts dexterity

Time __________ . . . . X | 9 |10|11|12|

Date __________ . . . . X |13|14|15|

Examiner __________

30. Non-language learning

Trials — Time

1. __________ . . . .
2. __________ . . . .
3. __________ . . . . X |16|17|18|19|

Date __________ . . . . X |20|21|22|

Examiner __________

31. Achievement tests

Wide range vocabulary

Raw score __________ . . . . X |23|24|25|

Age (years) __________ (months) __________ . . .
(Test score, not chronological age)

Date __________ . . . . X |26|27|28|

Examiner __________

Mathematics test (Form #________). . . . .

Percent correct . . . .|29|30|31|

Date________________________ . . . . X |32|33|34|

Examiner____________________

B. 1. 2. CASE HISTORY DATA: INSTRUCTIONS FOR USE

1. Study instructions and data sheets carefully before beginning.

2. If you have information from tests, not included in the regular or other test sections, record data on reverse side. Please record all extra I. Q.'s in this fashion.

3. If you write on the back of any sheet, make a clear note to that effect at the bottom of the sheet.

4. Please use pen.

5. If you must cross out a number already "penned" in a box, or set of boxes, obliterate the entire set. Neatly draw another set as close to the original as possible. Put the appropriate box numbers under the new boxes and place the correct numbers in the box.

6. Do not write in boxes preceded by an "X." Write in the space provided and a coder will later record the information in the boxes.

7. When you are at all uncertain as to the information required for boxes not preceded by an "X," do not write the answer in the boxes. Write it in other available space and explain clearly so that it can be coded later by the coder.

8. When the information requested is not available, but something similar is available, do not write in the boxes; write the information in space provided and explain.

9. When the answer required is in one form and you have it in another (e.g., if time is asked for in seconds and you have it in minutes and seconds) do not write in boxes, even if they are not X'd, but write in other available space in the most convenient form for you. The coder will translate later.

10. When there is no information on a question, leave the whole section blank.

11. If you have more boxes than you need for an answer: Example 1—the answer is 6 yr and there are 2 boxes available; record thus: $\boxed{0}\boxed{6}$ Example 2—the answer is 97 and you have 3 boxes, record thus: $\boxed{0}\boxed{9}\boxed{7}$

12. Please make all numbers as clear as possible, especially those in the boxes. It will be important for the key puncher. Be especially careful with 0 and 6, 1 and 7, 3 and 5.

13. Please count the pages of each set before you begin a case in order to make certain it is complete.

B.1.3. CASE HISTORY DATA: CODING INSTRUCTIONS

COLUMN	VARIABLE	CODE	
2,3	Birthdate, month	January to	01
		December	12
4,5	Birthdate, day		01 to 31
6,7	Birthdate, year	Last two digits of birth year	25 to 55
8	Sex	Male	1
		Female	2
9	Race	Caucasion	1
		Negro	2
		Others	3
10	Religion	Protestant Major Sect	1
		Protestant Minor Sect	2
		Catholic	3
		Jewish	4
		Other	5
		None	6
		Not given	7
11	Living with:	Both parents	1
		Mother only	2
		Father only	3
		Parent and step parent	4
		Other person or family	5
		Other (e.g., inst.)	6
12,13	Parent's socioeconomic index Reiss (1961) p. 263-275	Duncan's Scale	01 to 99
14	No. of older female 1/2 siblings any more than 9 code as 9		0 to 9

COLUMN	VARIABLE	CODE	
15	No. of older female siblings any more than 9 code as 9		0 to 9
16	No. of older male 1/2 siblings any more than 9 code as 9		0 to 9
17	No. of older male siblings any more than 9 code as 9		0 to 9
18	No of younger female 1/2 siblings any more than 9 code as 9		0 to 9
19	No. of younger female siblings any more than 9 code as 9		0 to 9
20	No. of younger male 1/2 siblings any more than 9 code as 9		0 to 9
21	No. of younger male siblings any more than 9 code as 9		0 to 9
22	No. of same age female siblings	Twin	1
		Triplet	2
23	No. of same age male siblings	Twin	1
		Triplet	2

Items 24 to 42 are for relatives with major visual handicaps only.

24	No. of older female 1/2 siblings any more than 9 code as 9		0 to 9
25	No. of older female siblings any more than 9 code as 9		0 to 9
26	No. of older male 1/2 siblings any more than 9 code as 9		0 to 9
27	No. of older male siblings any more than 9 code as 9		0 to 9
28	No. of younger female 1/2 siblings any more than 9 code as 9		0 to 9

COLUMN	VARIABLE	CODE	
29	No. of younger female siblings any more than 9 code as 9		0 to 9
30	No. of younger male 1/2 siblings any more than 9 code as 9		0 to 9
31	No. of younger male siblings any more than 9 code as 9		0 to 9
32	No. of same age female siblings	Twin	1
		Triplet	2
33	No. of same age male siblings	Twin	1
		Triplet	2
34	Mother	Visually handicapped	1
		Not handicapped	2
		No information	0
35	Father	Visually handicapped	1
		Not handicapped	2
		No information	0
36	Spouse	Visually handicapped	1
		Not handicapped	2
		No information	0
37,38	Children (male)	Visually handicapped	Actual No.
39,40	Children (female)	Visually handicapped	Actual No.
41,42	Other blood relatives	Visually handicapped	Actual No.
43,44	Father's education (last completed grade)	Grade 6 or less	06
		Grade 7	07
		Grade 8	08
		Grade 9	09
		Grade 10	10
		Grade 11	11
		Grade 12	12
		1 yr college	13
		2 yr college	14
		3 yr college	15
		4 or more yr	16
		B.A.	17
		M.A.	18
		Professional degree	19
		Ph.D./Ed.D.	20

COLUMN	VARIABLE	CODE	
45,46	Mother's education	Same as 43,44	
47,48,49	Occupation (father)	U.S. Census Code	001 999
50,51,52	Occupation (mother)	U.S. Census Code	001 999
53	Occupation sex (head of house, not mother or father)	Male	1
		Female	2
54,55,56	Occupation of head of household	U.S. Census Code	001 999
57,58	Subject's year of graduation from high school or year he should have graduated	(Last two digits)	40 63
59,60	Total number of years subject was in private or public school, regular or special classes	Actual number of years	01 19
61,62	Total number of years subject was in a residential school	Actual number of years	01 19
63,64	Total number of years subject was in some other school setting	Actual number of years	01 19
65,66,67	Age at the time of eye examination	Years and tenths of years	
68	Age of onset	Congenital thru 6 mo	1
		7 mo thru 12 mo	2
		13 mo up to 2 yr	3
		2 yr up to 3 yr	4
		3 yr up to 5 yr	5
		5 yr up to 10 yr	6
		from 10 to/not include 15 yr	7
		15 yr on up	8

COLUMN	VARIABLE	CODE	
69	Type of onset	Gradual	1
		Traumatic	2
		Unknown	3
		At birth	4
70,71	Etiology (NSPB, 1966, p. 44-45)	Ophthalmia Neonatorum	11
		Syphilis	12
		Trachoma	13
		Toxoplasmosis	14
		Rubella	15
		Tuberculosis	16
		Gonorrhea	17
		Measles	18
		Other	19
		Injuries—accidents	20
		Retrolental Fibroplasia	31
		Other	32
		Neoplasma—tumors	40
		Diabetes	51
		Vascular	52
		Central nervous system	53
		Other	54
		Hereditary	61
		Not specified	62
		Glaucoma	71
		Myopia	72
		Other	73
		Undetermined	80
		Not specified	90
72,73	Diagnosis (NSPB, 1966, p. 56)	Glaucoma	11
		Myopia	12
		Albinism	13
		Coloboma	14
		Anophthalmos and Microphthalmos	15
		Aniridia	16
		Hyperopia	17
		Nystagmus	18
		Other	19
		Conjunctive—Ophthalmia Neonatorum (gonorrhea)	20
		Cornea	30
		Cataract	41
		Dislocated lens	42
		Other	43
		Uveal tract	50

COLUMN	VARIABLE	CODE	
72,73	Diagnosis (NSPB, 1966, p. 56) (continued)	Retrolental Fibroplasia	61
		Retinal & Macular Dengen.	62
		Retinoblastoma	63
		Retinitia Pigmentosa (Optic nerve atrophy)	64
		Other	65
		Optic nerve	70
		Vitreous	80
		Undetermined and not specified	90
74	Vision with correction (Riviere, 1964, p. 111)	20/20 - 20/70	1
		20/80 - 20/160	2
		20/200 - 20/320	3
		20/400 - 20/1000	4
		20/1250 - 20/4000	5
		Can count fingers only	6
		Perceive hand movement only	7
		Light perception only	8
		Totally blind	9
75	Blank		
76	Punch card number	Card 1 up to	1
		Card 8	8
77-80	Subject's I.D. number	Four digit code number	1001 9999

Begin Case History: Card No. 2

Left Eye

2	Age of onset	Congenital thru 6 mo	1
		7 mo thru 12 mo	2
		13 mo up to 2 yr	3
		2 yr up to 3 yr	4
		3 yr up to 5 yr	5
		5 yr up to 10 yr	6
		from 10 to/not included 15 yr	7
		15 yr on up	8

COLUMN	VARIABLE	CODE	
3	Type of onset	Gradual	1
		Traumatic	2
		Unknown	3
		At birth	4
4,5	Etiology (NSPB, 1966, pp. 44-5)	Ophthalmia Neonatorum	11
		Syphilis	12
		Trachoma	13
		Toxoplasmosis	14
		Rubella	15
		Tuberculosis	16
		Gonorrhea	17
		Measles	18
		Other	19
		Injuries—accidents	20
		Retrolental Fibroplasia	31
		Other	32
		Neoplasms—tumors	40
		Diabetes	51
		Vascular	52
		Central nervous system	53
		Other	54
		Hereditary	61
		Not specified	62
		Glaucoma	71
		Myopia	72
		Other	73
		Undetermined	80
		Not specified	90
6,7	Diagnosis (NSPB, 1966, p. 56)	Glaucoma	11
		Myopia	12
		Albinism	13
		Coloboma	14
		Anophthalmos and microphthalmos	15
		Aniridia	16
		Hyperopia	17
		Nystagmus	18
		Other	19
		Conjunctive—Ophthalmia Neonatorum (gonorrhea)	20
		Cornea	30
		Cataract	41
		Dislocated lens	42
		Other	43

COLUMN	VARIABLE	CODE	
6,7	Diagnosis (continued)	Uveal tract	50
		Retrolental Fibroplasia	61
		Retinal & Macular Degen.	62
		Retinoblastoma	63
		Retinitis Pigmentosa	64
		(Optic nerve atrophy)	
		Other	65
		Optic nerve	70
		Vitreous	80
		Undetermined and not specified	90
8	Vision w/ correction	20/20 - 20/70	1
		20/80 - 20/160	2
		20/200 - 20/320	3
		20/400 - 20/1000	4
		20/1250 - 20/4000	5
		Can count fingers only	6
		Perceive hand movement only	7
		Light perception only	8
		Totally blind	9
9	Functional Vision	Ord. print & pen & paper &/or typewriter	1
		Ord. Print w/magn. & ord. pen & paper &/or typewriter	2
		Large print & ord. pen & paper &/or typewriter	3
		Large print w/magn. & special pen or typewriter	4
		Prefers Braille or auditory media for reading but can write w/ ord. pen, spec. pen, or large type typewriter	5
		Braille	6
Other Disabilities			
10	Speech disability	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4

COLUMN	VARIABLE	CODE	
11	Hearing disability	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4
12	Cerebral Palsy	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated bu disability present	4
13	Orthopedic	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated buy disability present	4
14	Epilepsy	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4
15	Allergies	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4
16	Cardiac	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4
17	Emotional	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4
18	Neurological	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4

COLUMN	VARIABLE	CODE	
19	Other Disabilities	Mild	1
		Moderate	2
		Severe	3
		Degree not indicated but disability present	4
20	Status comparison between present (or last) job and vocational interest expressed in high school close in status to job held	Present job 2 or more categories higher	1
		Present job 1 category higher	2
		Same category	3
		Present job 1 category lower	4
		Present job 2 or more lower	5
21	Comparison of similarity of present job w/most similar job interest	Same category	1
		Different category	2
22	Status comparison of high school recommendation and present job.	Present job 2 or more higher	1
		Present job 1 higher	2
		Same category	3
		Present job 1 category lower	4
		Present job 2 or more lower	5
23	Comparison of similarity of present job w/most similar job recommendation from high school	Same category	1
		Difference category	2
24	Degree of counseling	Little or no counseling	1
		8-10 meetings, more than routine testing	2
		Fairly extensive job counseling	3
		Extensive aid	4
25,26	File Weight (Michigan group only)	0 - 1 oz	01
		1+ - 2 oz	02
		2+ - 4 oz	03
		4+ - 7 oz	04
		7+ - 10 oz	05

COLUMN	VARIABLE	CODE	
25,26	File Weight (continued)	10+ - 15 oz	06
		15+ - 20 oz	07
		20+ - 30 oz	08
		30+ - 40 oz	09
		40+ - 50 oz	10
		50+ - —	11
27,28	Money spent on subject	Under $100	01
		$100 - $249	02
		$250 - $499	03
		$500 - $749	04
		$750 - $999	05
		$1000 - $1999	06
		$2000 - $2999	07
		$3000 - $3999	08
		$4000 - $4999	09
		$5000 - $6999	10
		$7000 - up	11
		No record	12
		Undetermined amount	13
29,30	Education	Grade 6 or less	06
		Grade 7	07
		Grade 8	08
		Grade 9	09
		Grade 10	10
		Grade 11	11
		Grade 12	12
		1 yr college	13
		2 yr college	14
		3 yr college	15
		4 or more years	16
		B.A.	17
		M.A.	18
		Professional degree	19
		Ph.D./Ed.D	20
31,32	Subject's major as an undergraduate	Agriculture	01
		Architecture	02
		Biological sciences	03
		Business and commerce	04
		Education	05
		Engineering	06
		English and literature	07
		Fine and applied arts	08
		Foreign languages and literature	09

COLUMN	VARIABLE	CODE	
31,32	Subject's major as an undergraduate (continued)	Forestry	10
		Geography	11
		Health professions	12
		Home economics	13
		Journalism	14
		Law	15
		Library science	16
		Mathematical subjects	17
		Merchant marine	18
		Military, Naval or Air Force science	19
		Philosophy	20
		Physical sciences	21
		Psychology	22
		Religion	23
		Social science	24
		Trade and industrial training	25
		Other broad general curriculums and miscellaneous fields	26
33	Size of student body of college attended	Up to 500	1
		500 - 999	2
		1000 - 1999	3
		2000 - 3999	4
		4000 - 6999	5
		7000 - 9999	6
		10,000 - up	7
		Tech. school of unknown size	8

Further Education

34	Length of time in clerical-dictaphone school	Up to 2 wk	1
		2+ thru 4 wk	2
		1 mo+ thru 3 mo	3
		3 mo+ thru 6 mo	4
		6 mo+ thru 1 yr	5
		1 yr+ thru 2 yr	6
		2 yr+	7
		Unspecified period of time	8

COLUMNS	VARIABLE	CODE	
35	Length of time in vocational training (skilled labor)	Up to 2 wks	1
		2+ thru 4 wk	2
		1 mo+ thru 3 mo	3
		3 mo+ thru 6 mo	4
		6 mo+ thru 1 yr	5
		1 yr+ thru 2 yr	6
		2 yr+	7
		Unspecified period of time	8
36	Length of time in vending sales training	Up to 2 wks	1
		2+ thru 4 wk	2
		1 mo+ thru 3 mo	3
		3 mo+ thru 6 mo	4
		6 mo+ thru 1 yr	5
		1 yr+ thru 2 yr	6
		2 yr+	7
		Unspecified period of time	8
37	Length of time in other vocational school	Up to 2 wks	1
		2+ thru 4 wk	2
		1 mo+ thru 3 mo	3
		3 mo+ thru 6 mo	4
		6 mo+ thru 1 yr	5
		1 yr+ thru 2 yr	6
		2 yr+	7
		Unspecified period of time	8
38	Length of time in nonvocational training schools e.g., mobility, braille, daily living	Up to 2 wks	1
		2+ thru 4 wk	2
		1 mo+ thru 3 mo	3
		3 mo+ thru 6 mo	4
		6 mo+ thru 1 yr	5
		1 yr+ thru 2 yr	6
		2 yr+	7
		Unspecified period of time	8
39	Number of moves since high school	0 = no data	0-9

TEST SCORES

40,41,42	Hayes Binet I.Q.	Raw score	045-200
43,44,45	Chronological age	Years and tenths	070-350

COLUMN	VARIABLE	CODE	
46,47,48	Wechsler Bellevue I Verbal I.Q.	Raw score	045-200
49,50,51	Wechsler Bellevue I Performance I.Q.	Raw score	045-200
52,53,54	Wechsler Bellevue I Full Scale I.Q.	Raw score	045-200
55,56,57	Chronological age	Years and tenths	070-350
58,59,60	Wechsler Bellevue II Verbal I.Q.	Raw score	045-200
61,62,63	Wechsler Bellevue II Performance I.Q.	Raw score	045-200
64,65,66	Wechsler Bellevue II Full Scale I.Q.	Raw score	045-200
67,68,69	Chronological age	Years and tenths	070-350
70,71,72	W.I.S.C. Verbal I.Q.	Raw score	045-200
73,74,75	W.I.S.C. Performance I.Q.	Raw score	045-200
76	Punch card number	Card 1 up to Card 8	1 8
77-80	Subject's I.D. number	Four digit code number	1001 9999

Begin Case History: Card No. 3

2,3,4	W.I.S.C. Full Scale I.Q.	Raw score	045-200
5,6,7	Chronological age	Years and tenths	070-350

COLUMN	VARIABLE	CODE	
8,9,10	W.A.I.S. Verbal I.Q.	Raw score	045-200
11,12,13	W.A.I.S. Full Scale I.Q.	Raw score	045-200
14,15,16	Chronological age	Years and tenths	070-350
17,18,19	Stanford Binet I.Q.	Raw score	045-200
20,21,22	Chronological age	Years and tenths	070-350
PERSONALITY TESTS			
Bell Adjustment Inventory Score:			
23,24	Home	Raw score	01-99
25,26	Health	Raw score	01-99
27,28	Emotional	Raw score	01-99
29,30	Social	Raw score	01-99
31,32,33	Chronological age	Years and tenths	070-350
Emotional Factors Inventory			
34,35	Sensitivity	Raw score	01-99
36,37	Somatic symptoms	Raw score	01-99
38,39	Social competency	Raw score	01-99
40,41	Attitudes of distrust	Raw score	01-99

COLUMN	VARIABLE	CODE	
42,43	Feelings of inadequacy	Raw score	01-99
44,45	Morale	Raw score	01-99
46,47	Attitudes re: blindness	Raw score	01-99
48,49	Validation	Raw score	01-99
50,51,52	Chronological age	Years and tenths	070-350
Bernreuter			
53,54	B1-N	Percentile scores	01-99
55,56	B2-S	Percentile scores	01-99
57,58	B4-D	Percentile scores	01-99
59,60	F1-C	Percentile scores	01-99
61,62	F2-S	Percentile scores	01-99
63,64	Other	Percentile scores	01-99
65,66	Other	Percentile scores	01-99
67,68	Other	Percentile scores	01-99
69,70,71	Chronological age	Years and tenths	070-350
VOCATIONAL INTEREST TESTS			
Kuder Preference			
72,73	Mechanical	Raw score	01-99
74,75	Computational	Raw score	01-99

COLUMN	VARIABLE	CODE	
76	Punch card number	Card 1 up to	1
		Card 8	8
77-80	Subject's I.D. number	Four digit code number	1001 9999

Begin Case History: Card No. 4

Kuder Preference

2,3	Scientific	Raw score	01-99
4,5	Persuasive	Raw score	01-99
6,7	Artistic	Raw score	01-99
8,9	Literary	Raw score	01-99
10,11	Music	Raw score	01-99
12,13	Social service	Raw score	01-99
14,15	Clerical	Raw score	01-99
16,17,18	Chronological age	Years and tenths	070-350

Lee Thorpe

19,20	Personal—social	Raw score	01-99
21,22	Natural	Raw score	01-99
23,24	Mechanical	Raw score	01-99
25,26	Business	Raw score	01-99

COLUMN	VARIABLE	CODE	
27,28	Arts	Raw score	01-99
29,30	Sciences	Raw score	01-99
31,32	Types of interest/verbal	Raw score	01-99
33,34	Manipulative	Raw score	01-99
35,36	Computational	Raw score	01-99
37,38	Level of interest	Raw score	01-99
39,40,41	Chronological age	Years and tenths	070-350
Brainard Occupational Preference			
42,43	Commercial	Raw score	01-99
44,45	Personal service	Raw score	01-99
46,47	Agriculture	Raw score	01-99
48,49	Mechanical	Raw score	01-99
50,51	Professional	Raw score	01-99
52,53	Aesthetic	Raw score	01-99
54,55	Scientific	Raw score	01-99
56,57,58	Chronological age	Years and tenths	070-350

COLUMN	VARIABLE	CODE	
APTITUDE TESTS			
Minn. Rate of Manipulation			
59,60,61,62	Displacing	Best time in sec	0001- 9999
63,64,65,66	Turning	Best time in sec	0001- 9999
67,68,69	Chronological age	Years and tenths	070- 350
Penn. Bi-Manual Dexterity			
70,71,72,73	Assembly	Best time in sec (9999-fail)	0001- 9999
74,75	Blank		
76	Punch card number	Card 1 up to Card 8	1 8
77-80	Subject's I.D. number	Four digit code number	1001 9999

Begin Case History: Card No. 5

COLUMN	VARIABLE	CODE	
Penn. Bi-Manual Dexterity			
2,3,4,5	Disassembly	Best time in sec (9999-fail)	0001- 9999
6,7,8	Chronological age	Years and tenths	070- 350
Crawford Small Parts Dexterity			
9,10,11,12	Time	Best time in sec (9999-fail)	0001- 9999
13,14,15	Chronological age	Years and tenths	070- 350

COLUMN	VARIABLE	CODE	
Non-Lang. Learning			
16,17,18,19	Time	Best time in sec (9999-fail)	0001-9999
20,21,22	Chronological age	Years and tenths	070-350
ACHIEVEMENT TESTS			
Wide Range Vocabulary			
23,24,25	Score	Raw score	001-999
26,27,28	Chronological age	Years and tenths	070-350
Mathematical Test			
29,30,31	Percent correct	Straight percent	001-999
32,33,34	Chronological age	Years and tenths	070-350
35	Type of interview	Personal	1
		Telephone	2
		Refused to be interviewed	3
		Unable to locate	4
		Deceased	5
36-39	Blank		

B.2.1 INTERVIEW: FORM

1. Coding case number ____________________

2. Place of birth (city) ____________________ (state) ______________ X 40

3. Present household: . . . . X 41 42
   (1) Live in own household (alone or with others) ____
   (2) Live in home of family member ____
   (3) Live as roomer in non-family household ____
   (4) Live as member of household in home of non-family member ____
   (Interviewer—if none of the above apply, check one of the following)

   (5) Home for the retarded ____
   (6) Home for the emotionally disturbed ____
   (7) Nursing home ____
   (8) Prison ____
   (9) Home for the blind ____
   (10) Other (describe) _________________________

Do not have the subject answer # 4 if the answer to #3 was 5,6,7,8 or 9

4. Other members of the household

   Spouse—yes (1), no (2) 43

   Mother of subject—yes (1), no (2) 44

   Father of subject—yes (1), no (2) 45

   Mother-in-law of subject—yes (1), no (2) 46

   Father-in-law of subject—yes (1), no (2) 47

   Children (number) _____ . . . . X 48

   Other blood relatives (number) _____ . . . . X 49

   Other (specify, number) _________________________ . . . . . . X 50

INTERVIEWERS REPORT:

Which questions, on this page, caused:

1. Embarrassment ________
2. Resistence ________
3. Trouble with rapport ________
4. Boredom ________
5. Impatience ________
6. Confusion ________

5. Marital status:

(Check that which applies) . . . . X 51

____Single (never married) (1)

____Married (1 marriage) (2)

____Divorced and remarried (3)

____Divorced and single (4)

____Separated (5)

____Widowed and remarried (6)

____Widowed and single (7)

____Other (describe) ____________________

6. Age at time of first marriage 52 53
(to the nearest whole year)

7. Children (Include deceased children)

Number of male children 54 55

Number of female children 56 57

Birthdate of each child

Month Year Month Year

__________ __________

8. Number of family members who have major visual handicaps
(To be coded later on data sheet page 2, Item #12)

Spouse ____

Children (male, number) ____

Children (female, number) ____

9. Other disabilities in family members and subject

No. in Family	Subject (✓)	Disability	
		Speech	X 58 | 59
		Hearing	X 60 | 61
		Orthopedic (e.g., polio) . . .	X 62 | 63
		Epilepsy	X 64 | 65
		Cerebral palsy	X 66 | 67
		Other brain damage	
		Diabetes	
		Allergies	X 68 | 69
		Cardiac	X 70 | 71
		Emotional problems	X 72 | 73
		Retardation	X 74 | 75
		Other (specify) 5 | I | D N | umb | er 7677 75 79 80	2 | 3

If the subject has one of the above handicaps, have him describe in terms of how handicapping he feels the disability is to him.

____

Interviewer's comments about severity ________________________

____

10. Occupation of father (use step-father if the subject has been adopted or if he used the step-father's last name... USE PRESENT OR LAST OCCUPATION)

__________________________________ X 4 | 5 | 6

Occupation of mother (use step-mother if the subject has been adopted or if he used the step-mother's last name... USE PRESENT OR LAST OCCUPATION)

__________________________________ X 7 | 8 | 9

If the head of the childhood household was other than the father or mother, what is that person's present (or last) occupation.

______________________________ X | 10 | 11 | 12 | 13 |

Was that person: (male) _____ (female) _____

Occupation of Spouse ______________________________ X | 14 | 15 | 16 | 17 |

Present annual income of spouse ______________________________ X | 18 | 19 |

11a. Employment history of subject

Title and Duties

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________

Title and Duties

11. ______________________________
12. ______________________________
13. ______________________________
14. ______________________________
15. ______________________________
16. ______________________________
17. ______________________________
18. ______________________________
19. ______________________________
20. ______________________________

Present or last employer (company or type of organization) ______________

Job No. as Used Above	Codes				Beginning and End Dates	
	A	B	C	D	Month	Year
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Job No. as Used Above	Codes				Beginning and End Dates	
	A	B	C	D	Month	Year
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						

Codes:

A. How job obtained

(01) Rehab services for blind
(02) Other agency serving blind
(03) State employment service
(04) Other agency
(05) School
(06) Relatives
(07) Friends
(08) Minister
(09) Physician
(10) Service club
(11) Interested community member(s)
(12) By self
(13) Promotions
(14) Other

B. Hours

(1) Part time
(2) Full time

C. Income (on an annual basis-prorate if job not held for a full year or if salary weekly)

(00) Less than $500
(01) 501-1000
(02) 1001-2000
(03) 2001-3000
(04) 3001-4000
(05) 4001-5000
(06) 5001-6000
(07) 6001-7000
(08) 7001-8000
(09) 8001-9000
(10) 9001-10,000
(11) 10,001-12,500
(12) 12,501-15,000
(13) 15,001-17,500
(14) 17,501-20,000
(15) 20,001-25,000
(16) 25,001-30,000
(17) 30,001-35,000
(18) 35,001-40,000
(19) 40,001-45,000
(20) 45,001-50,000
(21) Above 50,000

D. Reasons for leaving

(01) for change of climate
(02) for better working conditions
(03) for better hours
(04) for better pay
(05) dissatisfied with co-workers
(06) Dissatisfied with employer
(07) Dissatisfied with the work
(08) Did not feel qualified
(09) Had training for new job
(10) At employer's suggestion
(11) Work no longer needed
(12) Sickness
(13) Promotion
(14) Transfer
(15) Marriage, pregnancy
(16) Other (specify on back of page)

11b. Does the subject think he should have a better job? 20
(1) Yes, with no more training.
(2) Yes, with more training.
(3) No.

12. Other sources of income (present)--annual income*

Aid to blind	____________	X	21
ADC	____________	X	22
Church	____________	X	23
Service club	____________	X	24
Personal investments	____________	X	25
Insurance benefits	____________	X	26
Unemployment compensation	____________	X	27
Parents	____________	X	28
Other members of family	____________	X	29
Other (specify)	____________	X	30
Total present annual income	____________	X	31 32

13. Do you read braille 33
Yes(1) No(2)

14. If yes, has the knowledge of braille ever been useful in:

	Yes	No			
Getting a job	____	____	. . . .	X	34
Working on the job	____	____	. . . .	X	35

	Yes	No	
Getting a promotion	____	____	. . . . X 36
Home management	____	____	. . . . X 37
Recreation	____	____	. . . . X 38
Social activities	____	____	. . . . X 39
Other (specify)	____		. . . . X 40
____________________	____		

15. In your opinion, how valuable is braille to visually handicapped people? 41

Excellent	(1)
Good	(2)
Fair	(3)
Poor	(4)

Why? ______________________________________
____
____

16. How do you do most of your reading? X 42 43 44 45
(Number the top three in the order in which the subject uses them)

(1) Ordinary print without magnification ____

(2) Ordinary print with magnification ____

(3) Large print ____

(4) Braille ____ 46

(5) Records ____

(6) Talking books ____

(7) Tapes ____

(8) Sighted reader ____

Other (specify) ________________________

17. Which methods of writing does the subject use?

Often (1)
Seldom (2)
Never (3)

a. Ordinary pen and paper 47

b. Special large pen 48

c. Regular typewriter 49

d. Slate and stylus 50

e. Braille writer 51

f. Other (specify) ________________________________ X 52

18. Suggestions for improving the education of blind children

More emphasis (1)
Less emphasis (2)
Fine as was (3)

Print reading 53

Braille reading 54

Braille writing 55

Handwriting 56

Typewriting 57

Use of tape recorder and talking book 58

English 59

Foreign language 60

Music 61

Science 62

Math 63

Sex education 64

Health education 65

Religious education 66

Grooming 67

Helping your parents understand you 68

Social skills 69

Contact with sighted 70

Travel training 71

Training for a job 72

Homemaking 73

Knowledge of the world of work 74

Training in hand skills 75

Athletics . . . . | 6 | I | D | num | ber | 2

76 77 78 79 80

Other (specify) ______________________________ X

Other (specify) ______________________________ X

19. Did you have any formal training in the use of: . . . . X 3

Cane: yes ___ no ___

Dog: yes ___ no ___

20. Travel: (Use this code under the section below titled "Aids most frequently used") . . . . X 4

Aids	Code
None	(1)
Cane	(2)
Dog............	(3)
Person	(4)
Don't go	(5)

Extent of travel	Aids most frequently used
A round the home	______________________

Extent of travel	Aids most frequently used
In neighborhood	______________
In city or town of residence	______________
To and from work	______________
New and relatively distant places	______________

21. How well do you think you get along in travel ability? 5

Excellent	(1)
Good	(2)
Fair	(3)
Poor	(4)

22. Counseling and guidance

Has the subject ever spoken with anyone about getting a job? Yes ___ No ___

Has he ever spoken with anyone about other problems?
Yes ___ No ___

If yes to either of the above, please fill out the following form:

Name of Person Seen	Title	Agency	Beg. and End Approx. Dates	No. Times Seen	Purpose	Results

23. What is your present religion? . . . . X 6

Protestant (specify type) ______________________
Catholic ____________________________________
Jewish ______________________________________
Other (specify) ______________________________
None ____

24. Attendance . . . . X 7

(1) Regular (weekly)
(2) Often (many times a year)
(3) Seldom (a few times a year)
(4) Never

25. Church activities . . . . X 8

(Check one for each committee)

Committees	Very Active	Moderately	Not At All
1. Choir	_____	_____	_____
2. _______________	_____	_____	_____
3. _______________	_____	_____	_____
4. _______________	_____	_____	_____
5. _______________	_____	_____	_____
6. _______________	_____	_____	_____
7. _______________	_____	_____	_____
8. _______________	_____	_____	_____
9. _______________	_____	_____	_____

26. Did church provide special services for this subject? . . . . . X 9

(1) None _____
(2) Dogs _____
(3) Schooling _____
(4) Readers _____
(5) Transportation _____
Other (specify) ____________________________

27. In which community organizations do you take an interest? . . . X [10]

[11]

Type	Name of Organization	Very Active	Mod. Active	Not At All
Political	___	___	___	___
Unions	___	___	___	___
Social or fraternal	___	___	___	___
Self educational	___	___	___	___
P.T.A.	___	___	___	___
Professional	___	___	___	___
Organizations for blind	___	___	___	___
	___	___	___	___
Service	___	___	___	___
Other (specify)	___	___	___	___
	___	___	___	___

28. What proportion of your friends are sighted? . . . . [12]

Most (1)
Some (2)
Few or none (3)

29. Recreation . . . . X [13]

Usually participate with others (1)
Usually participate alone (2)
Do not usually participate (3)

[14]

___ T.V.
___ Radio
___ Movies-theater
___ Music-listener
___ Music-active participant
___ Talking books
___ Bowling
___ Spectator Sports

___ Dancing
___ Rides in car
___ Visiting and parties
___ Other (specify)
___ Other (specify)
___ Other (specify)
___ Drinking
___ Walks

___ Hunting
___ Fishing
___ Acting
___ Public speaking
___ Creative writing
___ Painting and/or sketching
___ Sculpture

m

___ Arts and crafts
___ Sewing and handwork
___ Other (specify)
___ Other (specify)
___ Other (specify)

30. Which of the following statements do you feel is most true? . . . 15

(1) Planning is useless because luck is more important
(2) Planning is useless since one plans hardly ever work out.
(3) Planning is useful since one can't rely on luck.

31. Do you feel that you are 16 17 18 19 20 21 22 23
above average (1)
about average (2)
below average (3)
in comparison with other blind people in each of the following areas?

Managing your money 24

Getting along with your family 25

Getting along with friends 26

Getting along with strangers 27

Getting along with co-workers 28

Getting along with your employer 29

Getting along in your work 30

Prospects for your future 31

Having a good life 32

32. In general, other blind people seem to think you are:

Above average (1)
About average (2)
Below average (3)
in each of the following areas.

Managing your money 33

Getting along with your family 34

Getting along with friends 35

Getting along with strangers 36

Getting along with co-workers 37

Getting along with your employer 38

Getting along in your work 39

Prospects for your future 40

Having a good life 41

33. Do you feel that you are
Above average (1)
About average (2)
Below average (3)
in comparison with sighted people in each of the following areas:

Managing your money 42

Getting along with your family 43

Getting along with friends 44

Getting along with strangers 45

Getting along with co-workers 46

Getting along with your employer 47

Getting along in your work 48

Prospects for your future 49

Having a good life 50

34. In general, sighted people seem to think you are
Above average (1)
About average (2)
Below average (3)
in each of the following areas:

Managing your money 51

Getting along with your family 52

Getting along with friends 53

Getting along with strangers 54

Getting along with co-workers 55

Getting along with your employer 56

Getting along in your work 57

Prospects for your future 58

Having a good life 59

35. The subject's general health as he sees it 60

Code:
Excellent (1)
Good (2)
Fair (3)
Poor (4)

36. Have subject describe any illness, accidents and/or operations: X [illegible]

____

____

____

37. What is the subject's height and weight?

Height _____ . . . .
X 62
Weight _____ . . . .

INTERVIEWER:

38. How would you rank the subject's statement about his/her weight? 63

(1) He appears to be much lighter than he says (more than 10-15 pounds)
(2) He appears to be slightly lighter than he says
(3) He appears to be about right
(4) He appears to be slightly heavier than he says
(5) He appears to be much heavier than he says (more than 10-15 pounds)

(INTERVIEWER: Please answer numbers 39,40,41, and 42. Do not ask the subject)

39. Does the subject have any eye movement?
Yes (1), No (2) 64

40. If yes, do these eye movements appear different from those of a sighted person? Yes (1), No (2) 65

41. Does the subject have an unusual head and/or neck posture? (Check one) Yes ___ No ___

42. Are there any other mannerisms (different from the normal)?
Yes ___ No ___
If so, what? ______________________________ . . . . X 66 67

ASK THE SUBJECT: 68 69

70 71

43. Do you feel that the blind have certain mannerisms which make them appear different from the sighted?
Yes (1), No (2) 72

If answer is yes, describe:

Blank	7	I	D	num	ber
75	76	77	78	79	80

____ . . . . X 73 74

____ . . . . X 2 3

____ . . . . X 4 5

44. Do you think you have any such mannerisms?
Yes (1), No (2) 6

If answer is yes, describe:

____________________________________ . . . . X 9 10

____________________________________ . . . . X 11 12

If the answer is yes to 44, ask 45, 46, 47.

45. Do you think others notice your mannerisms? Yes (1), No (2) . 13

46. Do you think your mannerisms have had a negative effect in your dealings with other people? Yes (1), No (2) 14

47. If yes to 46, in what ways?
(Interviewer: Do not read the following list to the subject. Let the subject answer and you classify the answers. Check all that apply. If his answer does not clearly go into one of the categories, ask him to be more specific. If it still doesn't fit, describe in "other."

_____ Subject withdraws . . . . X 15

_____ Subject self-conscious . . . . X 16

_____ People withdraw from subject . . . . X 17

_____ People are over solicitous . . . . X 18

_____ People ignore subject . . . . X 19

_____ Keeps subject from getting/keeping a job . . . . X 20

_____ Other (specify) . . . . X 21

The following items are for subjects with no hearing handicaps.

48. Suppose a method of reading were developed that would be faster than talking books or braille. For such a method you might have to use earphones and therefore, would not be able to hear what would be going on around you. How often would you be willing to use such a device? 22

Very often (1)	Seldom (3)
Often (2)	Never (4)

49. Would you use the method if it would attract attention to you?
Yes (1), No (2), Maybe (3) 23

50. Suppose further, that such a device could enable you to receive other kinds of information that sighted people usually get through the eye. Realizing that every time you wore this device you would essentially be denied information you usually hear, when would you be willing to use the earphones.

Very often (1)
Often (2)
Seldom (3)
Never (4)

a. As an aid in walking 24

b. Around the house 25

c. Reading 26

d. On the job 27

e. Other (specify) ______________________ 28

f. Other (specify) ______________________ 29

51. Would you use this method if it would attract attention to you? Yes (1), No (2), Maybe (3) . . . . [30]

52. If you had been trained with this device from childhood, do you think you would feel differently? Yes (1), No (2), Maybe (3) . . [31]

In what ways?

____

____

____

53. Interviewer

Using a three point scale X [32]
Good (1)
Fair (2)
Poor (3)
how would you rate the subject on each of the following:

General cleanliness and neatness of:

Hair _____

Face _____

Clothing _____

Nails _____

Basic appearance of :

Facial features _____

Facial expression _____ (define in terms of pleasantness)

Posture _____

Clothing _____

Body _____

54. Interviewer's report

Which question caused: (Summary)

Embarrassment ________________________________

Resistance ______________________________

Trouble with rapport ______________________

Boredom ________________________________

Impatience ______________________________

Confusion _______________________________

B.2.2. INTERVIEW: INSTRUCTIONS FOR USE

Study these instructions carefully, with the Interview form in hand, before seeing your first subject. Since some of the items do not give the interviewer a direct question to ask, as, for example, item #36, you must familiarize yourself with the intent of all questions and ask them in whatever way is necessary and appropriate for each subject. We recommend that you "commandeer" a friend and give a practice interview prior to seeing your first subject.

Do not write in boxes preceded by an "x." Write in the space provided. If you are uncertain whether to write in the box, don't; instead, write the information in other available space. If the answer is a single digit number, and there are two boxes provided, use both boxes, for example, | 0 | 6 | . Please make all numbers as clear as possible.

Please make use of pre-coded items. Use "other" only when the response of the subject does not clearly fit any pre-coded category. When using the "other" category, please make certain that sufficient information is given so the coder can make an interpretation from the comments.

If you write on the back of any sheet, make a clear note to that effect on the front of the sheet. Comments added to the questionnaire which may be of value for further studies should be clearly noted when they are not to be coded. Use the following system: quotation marks for direct comments of subjects; parentheses for comments of the interviewer; brackets for observations which are not relevant for coding the item.

In general, items should be administered in the order in which they appear. However, should there be great resistance to any specific item, it is justifiable to change to another item in order to save the interview.

The following notes relate to specific items on the interview form:

ITEM 11a

Employment history of the subject. Have the subject list all positions (and associated duties and/or responsibilities) he has ever held. It is not necessary that he list them in any particular order, since the beginning and ending dates of each job are requested in the next section. For each job, record in the appropriate column, A-D, information concerning that job (i.e., how obtained, hours, income, and reason for leaving), by writing the number of the appropriate pre-coded category. If the "other" category is used for more than one job, indicate which "job" belongs with which "other." For example, if the subject has left two or more jobs for reasons that cannot be classified in one of the pre-coded categories, use Part D (13) "Other" for the first; (14) for the second, etc. Follow the same procedure for Part A, (13) "Other." Please be as specific as possible concerning job title and duties so that the job classification may be determined as accurately as possible.

ITEMS # 48 through # 52

Do not ask these questions if you feel you have already used too much time or if you feel that the subject may not be able to give reasonable answers.

B.2.3 INTERVIEW: CODING INSTRUCTIONS

COLUMN	VARIABLE	CODE	
40	Place of birth	Still in state of birth	1
		Living in another state	2
41,42	Present household	Own home (alone or with others)	01
		Home of family member	02
		Roomer in home of non-relative	03
		Member of household of non-relative	04
		Home for retarded	05
		Home for emotionally disturbed	06
		Nursing home	07
		Prison	08
		Home for blind	09
		Other	10
43	Other members of household Spouse	Yes	1
		No	2
44	Mother	Yes	1
		No	2
45	Father	Yes	1
		No	2
46	Mother-in-law	Yes	1
		No	2
47	Father-in-law	Yes	1
		No	2
48	Children	Actual number (more than 9, code as 9)	
49	Other blood relatives	Actual number (more than 9, code as 9)	
50	Others in household	Actual number (more than 9, code as 9)	

COLUMN	VARIABLE	CODE	
51	Marital status	Single (never married)	1
		Married only once	2
		Divorced, remarried	3
		Divorced, single	4
		Separated	5
		Widowed, remarried	6
		Widowed, single	7
		Other	8
52,53	Age at time of first marriage	Actual age to last full year	
54,55	Number of children (Male)	Actual number (include deceased)	
56,57	Number of children (Female	Actual number (include deceased)	
58	Subject's speech disability	Mentioned by the subject	1
		Not mentioned by subject, in case history	2
		Subject doesn't mention, interviewer does	3
59	Family speech disabilities	Blood relative	1
		Spouse	2
		Children	3
60	Subject hearing disabilities	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3
61	Family hearing problems	Blood relative	1
		Spouse	2
		Children	3
62	Subjects orthopedic problems	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3
63	Family orthopedic problems	Blood relative	1
		Spouse	2
		Children	3

COLUMN	VARIABLE	CODE	
64	Subject epilepsy	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3
65	Epilepsy in family	Blood relative	1
		Spouse	2
		Children	3
66	Cerebral palsy in subject	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3
67	Cerebral palsy in family	Blood relative	1
		Spouse	2
		Children	3
68	Subject's allergies	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3
69	Family allergies	Blood relative	1
		Spouse	2
		Children	3
70	Subject cardiac problems	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3
71	Family cardiac problems	Blood relatives	1
		Spouse	2
		Children	3
72	Subject emotional problems	Mentioned by subject	1
		Not mentioned by subject, in case history	2
		Not mentioned by subject, by interviewer	3

COLUMN	VARIABLE	CODE	
73	Family emotional problems	Blood relative Spouse Children	1 2 3
74	Subject neurological problems	Mentioned by subject Not mentioned by subject, in case history Not mentioned by subject, by interviewer	1 2 3
75	Family neurological problems	Blood relative Spouse Children	1 2 3
76	Punch card number	Card 1 up to Card 8	1 8
77-80	Subject's I.D. number	Four digit code number	1001 9999
	Begin Interview:	Card No. 6	
2	Other disabilities (subject)	Mentioned by subject Not mentioned by subject, in case history Not mentioned by subject, by interviewer	1 2 3
3	Other disabilities (family)	Blood relative Spouse Children	1 2 3
4,5,6	Father's occupation	U.S. Census Code	001-999
7,8,9	Mother's occupation	U.S. Census Code	001-999
10	Sex of head of household if other than mother or father	Male Female	1 2
11,12,13	Occupation of head of house	U.S. Census Code	001-999
14	Sex of spouse	Male Female	1 2

COLUMN	VARIABLE	CODE	
15,16,17	Occupation of spouse	U.S. Census Code	001-999
18,19	Income of spouse	Less than $500	00
		$500 to $1000	01
		$1001 to $2000	02
		$2001 to $3000	03
		$3001 to $4000	04
		$4001 to $5000	05
		$5001 to $6000	06
		$6001 to $7000	07
		$7001 to $8000	08
		$8001 to $9000	09
		$9001 to $10000	10
		$10001 to $12500	11
		$12501 to $15000	12
		$15001 to $17500	13
		$17501 to $20000	14
		$20001 to $25000	15
		$25001 to $30000	16
		$30001 to $35000	17
		$35001 to $40000	18
		$40001 to $45000	19
		$45001 to $50000	20
		Over 50000	21
20	Subject attitude toward present job: "Should he have a better job?"	Yes, with no more training	1
		Yes, with more training	2
		No	3
Other Sources of Income			
21	Aid to blind and social Security	0-199 (1) 200-399 (2)	1-9
22	A.D.C.	400-599 (3) 600-799 (4)	1-9
23	Church	800-999 (5) 1000-1499 (6)	1-9
24	Service club	1500-1999 (7) 2000-2499 (8)	1-9
25	Personal investments	2500 and up (9)	1-9
26	Insurance benefits		1-9
27	Unemployment compensation		1-9

COLUMN	VARIABLE	CODE	
28	Parents		1-9
29	Other family members		1-9
30	Other sources		1-9
31,32	Total annual income	Less than $500	00
		$500 to $1000	01
		$1001 to $2000	02
		$2001 to $3000	03
		$3001 to $4000	04
		$4001 to $5000	05
		$5001 to $6000	06
		$6001 to $7000	07
		$7001 to $8000	08
		$8001 to $9000	09
		$9001 to $10000	10
		$10001 to $12500	11
		$12501 to $15000	12
		$15001 to $17500	13
		$17501 to $20000	14
		$20001 to $25000	15
		$25001 to $30000	16
		$30001 to $35000	17
		$35001 to $40000	18
		$40001 to $45000	19
		$45001 to $50000	20
		Over 50000	21
33	Does subject read braille?	Yes	1
		No	2
Usefulness of Braille			
34	Working on the job	Yes	1
		No	2
35	Working on the job	Yes	1
		No	2
36	Getting a promotion	Yes	1
		No	2
37	Home management	Yes	1
		No	2

COLUMN	VARIABLE	CODE	
38	Recreation	Yes	1
		No	2
39	Social activities	Yes	1
		No	2
40	Other	Yes	1
		No	2
41	Subject opinion as to the value of braille to visually handicapped persons	Excellent	1
		Good	2
		Fair	3
		Poor	4
Primary Reading Methods Used			
42	Ordinary print with or without magn and/or large print	Used most often	1
		Used frequently	2
		Used infrequently	3
		Not used	0
43	Braille	Used most often	1
		Used frequently	2
		Used infrequently	3
		Not used	0
44	Record, tapes, talking books	Used most often	1
		Used frequently	2
		Used infrequently	3
		Not used	0
45	Sighted reader	Used most often	1
		Used frequently	2
		Used infrequently	3
		Not used	0
46	Blank column		
Writing Methods Used by Subject			
47	Ordinary pen and paper	Often	1
		Seldom	2
		Never	3

COLUMN	VARIABLE	CODE	
48	Special large pen	Often	1
		Seldom	2
		Never	3
49	Regular typewriter	Often	1
		Seldom	2
		Never	3
50	Slate and stylus	Often	1
		Seldom	2
		Never	3
51	Braille writer	Often	1
		Seldom	2
		Never	3
52	Other	Often	1
		Seldom	2
		Never	3

Suggestions For Improving Education of Blind Children

53	Print reading	More emphasis	1
		Less emphasis	2
		Fine as was	3
54	Braille reading	More emphasis	1
		Less emphasis	2
		Fine as was	3
55	Braille writing	More emphasis	1
		Less emphasis	2
		Fine as was	3
56	Handwriting	More emphasis	1
		Less emphasis	2
		Fine as was	3
57	Typewriting	More emphasis	1
		Less emphasis	2
		Fine as was	3
58	Use of tape recorder and talking books	More emphasis	1
		Less emphasis	2
		Fine as was	3

COLUMN	VARIABLE	CODE	
59	English	More emphasis	1
		Less emphasis	2
		Fine as was	3
60	Foreign language	More emphasis	1
		Less emphasis	2
		Fine as was	3
61	Music	More emphasis	1
		Less emphasis	2
		Fine as was	3
62	Science	More emphasis	1
		Less emphasis	2
		Fine as was	3
63	Math	More emphasis	1
		Less emphasis	2
		Fine as was	3
64	Sex education	More emphasis	1
		Less emphasis	2
		Fine as was	3
65	Health education	More emphasis	1
		Less emphasis	2
		Fine as was	3
66	Religious education	More emphasis	1
		Less emphasis	2
		Fine as was	3
67	Grooming	More emphasis	1
		Less emphasis	2
		Fine as was	3
68	Helping your parents under stand you	More emphasis	1
		Less emphasis	2
		Fine as was	3
69	Social skills	More emphasis	1
		Less emphasis	2
		Fine as was	3

COLUMN	VARIABLE	CODE	
70	Contact with sighted	More emphasis	1
		Less emphasis	2
		Fine as was	3
71	Travel training	More emphasis	1
		Less emphasis	2
		Fine as was	3
72	Job training	More emphasis	1
		Less emphasis	2
		Fine as was	3
73	Homemaking	More emphasis	1
		Less emphasis	2
		Fine as was	3
74	Knowledge of work world	More emphasis	1
		Less emphasis	2
		Fine as was	3
75	Training in hand skills	More emphasis	1
		Less emphasis	2
		Fine as was	3
76	Punch card number	More emphasis	1
		Less emphasis	2
		Fine as was	3
77-80	Subject's I.D. number	Four digit code number	1001
			9999

Begin Interview: Card No. 7

2	Athletics		
3	Formal training in use of dog and cane	Cane and dog	1
		Cane only	2
		Dog only	3
		No formal training in either	4

COLUMN	VARIABLE	CODE	
4	Degree of independence in travel	Most independent	1
			2
			3
			4
		to	5
			6
			7
			8
		Most dependent	9
5	How well do you (subject) get along in travel ability	Excellent	1
		Good	2
		Fair	3
		Poor	4
6	Subject present religion	Protestant (Major sect)	1
		Protestant (Minor sect)	2
		Catholic	3
		Jewish	4
		Other	5
		None	6
		Not given	7
7	Church attendance	Regular (weekly)	1
		Often (many times/yr)	2
		Seldom (few times/yr)	3
		Never	4
8	Church activities	Very active in 1 or more activities. Moderately active in 2 or more activities	1
		Moderately active in at least 1 activity	2
		Not active in any activity	3
9	Church aid	Any aid at all	1
		No aid	2
10	Community participation	(Actual number of organizations in which subject is active)	1-9
11	Kind of organizations	No activity	0
		All blind activities	1
		Blind and/or sighted	2
		All sighted	3

COLUMN	VARIABLE	CODE	
12	Proportion of friends sighted	Most	1
		Some	2
		Few or none	3
13	Recreation type	Active, physically exertive, with others	1
		Active, physically exertive alone	2
		Active, with others	3
		Active, alone	4
		Passive, with others	5
		Passive, alone	6
		Inactive (rocking chair)	7
14	Drinking	Usually with others	1
		Usually alone	2
		Usually do not participate	3
		Alone and with others	4
15	Subjects opinion of luck	Planning useless-luck is more important	1
		Planning useless-ones plans hardly ever work out	2
		Planning is useful since one can't rely on luck	3
16	Average values for column 24-32	1.0- 1.7	1
		1.8- 2.2	2
		2.3- 3.0	3
17	Average values for column 33-41	1.0- 1.7	1
		1.8- 2.2	2
		2.3- 3.0	3
18	Average values for column 42-50	1.0- 1.7	1
		1.8- 2.2	2
		2.3- 3.0	3
19	Average values for column 51-60	1.0- 1.7	1
		1.8- 2.2	2
		2.3- 3.0	3

COLUMN	VARIABLE	CODE	
20	Degree of discrepancy between 16,17	Subject doesn't respond	0
		Diff. up through .5	1
		Ave. for 2nd more than .5 greater than ave. for 1st	2
		Ave. for 1st more than .5 greater than ave. for 2nd	3
		Not competent to answer	4
21	Degree of discrepancy between 18,19	Subject doesn't respond	0
		Diff. up through .5	1
		Ave. for 2nd more than .5 greater than ave. for 1st	2
		Ave. for 1st more than .5 greater than ave. for 2nd	3
		Not competent to answer	4
22	Degree of discrepancy between 16,18	Subject doesn't respond	0
		Diff. up through .5	1
		Ave. for 2nd more than .5 greater than ave. for 1st	2
		Ave. for 1st more than .5 greater than ave. for 2nd	3
		Not competent to answer	4
23	Degree of discrepancy between 17,19	Subject doesn't respond	0
		Diff. up through .5	1
		Ave. for 2nd more than .5 greater than ave. for 1st	2
		Ave. for 1st more than .5 greater than ave. for 2nd	3
		Not competent to answer	4
Subject's Comparison of Himself to Other Blind Persons			
24	Managing money	Above average	1
		About average	2
		Below average	3

COLUMN	VARIABLE	CODE	
25	Getting along with family	Above average	1
		About average	2
		Below average	3
26	Getting along with friends	Above average	1
		About average	2
		Below average	3
27	Getting along with strangers	Above average	1
		About average	2
		Below average	3
28	Getting along with co-workers	Above average	1
		About average	2
		Below average	3
29	Getting along with employer	Above average	1
		About average	2
		Below average	3
30	Getting along in work	Above average	1
		About average	2
		Below average	3
31	Prospects for your future	Above average	1
		About average	2
		Below average	3
32	Having a good life	Above average	1
		About average	2
		Below average	3
Subject's Perception of How Other Blind Persons See Him			
33	Managing money	Above average	1
		About average	2
		Below average	3
34	Getting along with family	Above average	1
		About average	2
		Below average	3
35	Getting along with friends	Above average	1
		About average	2
		Below average	3

COLUMN	VARIABLE	CODE	
36	Getting along with strangers	Above average	1
		About average	2
		Below average	3
37	Getting along with co-workers	Above average	1
		About average	2
		Below average	3
38	Getting along with employer	Above average	1
		About average	2
		Below average	3
39	Getting along in your work	Above average	1
		About average	2
		Below average	3
40	Prospects for your future	Above average	1
		About average	2
		Below average	3
41	Having a good life	Above average	1
		About average	2
		Below average	3
Subject's Comparison of Himself to Sighted Persons			
42	Managing money	Above average	1
		About average	2
		Below average	3
43	Getting along with family	Above average	1
		About average	2
		Below average	3
44	Getting along with friends	Above average	1
		About average	2
		Below average	3
45	Getting along with strangers	Above average	1
		About average	2
		Below average	3
46	Getting along with co-workers	Above average	1
		About average	2
		Below average	3

COLUMN	VARIABLE	CODE	
47	Getting along with employer	Above average	1
		About average	2
		Below average	3
48	Getting along in your work	Above average	1
		About average	2
		Below average	3
49	Prospects for your future	Above average	1
		About average	2
		Below average	3
50	Having a good life	Above average	1
		About average	2
		Below average	3
Subject's Perception of How Sighted Persons See Him			
51	Managing money	Above average	1
		About average	2
		Below average	3
52	Getting along with family	Above average	1
		About average	2
		Below average	3
53	Getting along with friends	Above average	1
		About average	2
		Below average	3
54	Getting along with strangers	Above average	1
		About average	2
		Below average	3
55	Getting along with co-workers	Above average	1
		About average	2
		Below average	3
56	Getting along with employer	Above average	1
		About average	2
		Below average	3
57	Getting along in your work	Above average	1
		About average	2
		Below average	3

COLUMN	VARIABLE	CODE	
58	Prospects for your future	Above average	1
		About average	2
		Below average	3
59	Having a good life	Above average	1
		About average	2
		Below average	3
60	Subject's general health as he sees it	Excellent	1
		Good	2
		Fair	3
		Poor	4
61	Objective health composite	Excellent	1
		Good	2
		Fair	3
		Poor	4
62	Subject's weight	10-25% underweight	1
		Up to 10% underweight	2
		Within ave. range	3
		Up to 10% overweight	4
		10-25% overweight	5
		More than 25% overweight	6
63	Interviewer's opinion as to weight given by subject	Appears more than 10-15 lbs. lighter	1
		Appears slightly lighter	2
		Appears about right	3
		Appears slightly heavier	4
		Appears much heavier (more than 10-15 lbs.)	5
64	Does subject have eye movements?	Yes	1
		No	2
65	If yes, are they different from those of sighted persons?	Yes	1
		No	2
66,67	Other unusual mannerisms	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07

COLUMN	VARIABLE	CODE	
66,67	Other unusual mannerisms (Continued)	Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
68,69	Other unusual mannerisms	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
70,71	Other unusual mannerisms	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
72	Subject "Do you think blind have certain mannerisms that make them appear different from sighted?"	Yes	1
		No	2

COLUMN	VARIABLE	CODE	
73,74	If answer is yes to 72, describe	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
75	Blank		
76	Punch card number	Card 1 up to	1
		Card 8	8
77-80	Subject's I.D. number	Four digit code number	1001 9999

Begin Interview: Card No. 8

2,3	If answer is yes to 72, describe	Head	01
		Eyes	02
		Hand	03
		Hand and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13

COLUMN	VARIABLE	CODE	
4,5	If answer is yes to 72, describe	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
6	Subject "Do you have any of these mannerisms?"	Yes	1
		No	2
7,8	If yes, describe	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
9,10	If yes, describe	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10

COLUMN	VARIABLE	CODE	
9,10	If yes, describe (continued)	Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
11,12	If yes, describe	Head	01
		Eyes	02
		Hands	03
		Hands and eyes	04
		Feet	05
		Body	06
		Posture	07
		Walking	08
		Facial expressions	09
		Doesn't face speaker	10
		Voice and speech	11
		Other	12
		Subject thinks he has mannerism interviewer doesn't	13
13	Do you think others notice your mannerisms?	Yes	1
		No	2
14	Do you think your mannerisms have a negative effect in dealings with others?	Yes	1
		No	2

Subject's Thoughts About How His Mannerisms Negatively Effect His Dealings With Others

15	Subject withdraws	Yes	1
		No	2
16	Subject self-conscious	Yes	1
		No	2
17	People withraw from subject	Yes	1
		No	2
18	People oversolicitous	Yes	1
		No	2
19	People ignore subject	Yes	1
		No	2

COLUMN	VARIABLE	CODE	
20	Keeps subject from getting/ keeping job	Yes	1
		No	2
21	Others	Yes	1
		No	2
22	Would you use reading method that required earphones?	Very often	1
		Often	2
		Seldom	3
		Never	4
23	Would you use it if it drew attention to you?	Yes	1
		No	2
		Maybe	3

Would You Use a Similar Device To:

24	Aid in walking	Very often	1
		Often	2
		Seldom	3
		Never	4
25	Around the house	Very often	1
		Often	2
		Seldom	3
		Never	4
26	Reading	Very often	1
		Often	2
		Seldom	3
		Never	4
27	On the job	Very often	1
		Often	2
		Seldom	3
		Never	4
28	Other	Very often	1
		Often	2
		Seldom	3
		Never	4

COLUMN	VARIABLE	CODE	
29	Other	Very often	1
		Often	2
		Seldom	3
		Never	4
30	Would you use this device if it would draw attention to you?	Yes	1
		No	2
		Maybe	3
31	If trained in this device from childhood would you feel differently?	Yes	1
		No	2
		Maybe	3
32	Interviewer's rating of subjects neatness and cleanliness	Good	1
		Fair	2
		Poor	3
33,34,35	Last job held by subject	U.S. Census Code	1001 9999
36,37	How job obtained	Rehabilitation services for blind	01
		Other agency for blind	02
		State employment service	03
		Other agency	04
		School	05
		Relatives	06
		Friends	07
		Minister	08
		Physician	09
		Service club	10
		Interested community members	11
		By self	12
		Promotions	13
		Other	14
38	Hours	Part-time	1
		Full-time	2
39,40	Income annual basis	Less than $500	00
		$501 - $1000	01
		$1001 - $2000	02
		$2001 - $3000	03
		$3001 - $4000	04
		$4001 - $5000	05

COLUMN	VARIABLE	CODE	
39,40	Income annual basis (continued)	$5001 - $6000	06
		$6001 - $7000	07
		$7001 - $8000	08
		$8001 - $9000	09
		$9001 - $10000	10
		$10001 - $12500	11
		$12501 - $15000	12
		$15001 - $17500	13
		$17501 - $20000	14
		$20001 - $25000	15
		$25001 - $30000	16
		$30001 - $35000	17
		$35001 - $40000	18
		$40001 - $45000	19
		$45001 - $50000	20
		above 50,000	21
41,42	Reasons for leaving	For change of climate	01
		For better working conditions	02
		For better hours	03
		For better pay	04
		Dissatisfied with co-workers	05
		Dissatisfied with employer	06
		Dissatisfied with the work	07
		Did not feel qualified	08
		Trained for new job or to start training	09
		At employer's suggestion	10
		Work no longer needed	11
		Sickness	12
		Promotion	13
		Transfer	14
		Marriage/pregnancy	15
		Other	16
43,44	Percent of time worked since high school by subject	(actual percent)	00-99
45,46	Subject's social status	(from Duncan's scale)	00-99
47	Job success (percent of time worked)	96-100%	1
		81-95%	2
		54-80%	3
		12-53%	4
		11% or less	5

COLUMN	VARIABLE	CODE	
48	Current employment status	Employed	1
		Unemployed	2
49-75	Blank		
76	Punch card number	Card 1 up to	1
		Card 8	8
77-80	Subject's I.D. number	Four digit code number	1001
			9999

B.3.1. RE-TEST INSTRUMENTS: EMOTIONAL FACTORS INVENTORY

You are to decide whether, in most cases, each of the following sentences is true for you, or untrue, indicating your responses as instructed.

1. I am a daydreamer.
2. I should not have to keep strictly to the regular rules that apply to other people.
3. Useless ideas keep running through my mind and bothering me.
4. Many times I feel afraid of something I know cannot hurt me.
5. I belong to at least one organization which is not chiefly for blind people.
6. I get frequent attacks of hay fever.
7. It disturbs me to have to find my way alone in strange places.
8. Occasionally I put off until tomorrow what I should do today.
9. If you do not deliberately do something to attract their attention, most people overlook you.
10. At the end of a meeting, when the speaker asks if there are any questions or comments, I always like to say something.
11. I cannot work in a job where there is dust.
12. I have ups and downs in mood without knowing why.
13. I smoke more than I should.
14. I think that when a blind person is in a group of seeing people, they should try to do things in which the blind person can easily join.
15. I cry easily.
16. I feel that blindness is the worst affliction anyone can have.
17. Often, when people explain things to me, I become so upset that they have to tell me several times.
18. Occasionally I laugh at a dirty joke.
19. I find it easy to make friends.
20. I think I ought to be allowed to win games when I play with seeing people.
21. It does not seem so difficult for me to get jobs, but I have very bad luck about keeping them.
22. I am very sensitive to drafts.
23. I have had a nervous breakdown.
24. I dislike eating in public restaurants.
25. I get tired more easily than most people do.
26. I like to show how well I know people by using their first names.
27. I am often bothered by an upset stomach.
28. There are times when I think of things too bad to talk about.
29. The only reason I am not popular is because of my lack of vision.
30. I am considered a rather nervous person.
31. Most food seems rather tasteless to me.
32. I get spells of the "blues."

33. I dislike going to parties where most of the other guests are strangers to me.
34. I find changes in my routine very disturbing.
35. I have to know people fairly well before I am sure whether I like them.
36. I have been held back because others have been jealous of me.
37. I feel I can take more liberties with my friends than seeing people probably could.
38. I would rather win than lose when I play a game.
39. I am rather shy.
40. I am told that I eat too fast.
41. I am rather sensitive about having to carry a cane, and leave it home as often as I can.
42. I am considered touchy and sensitive.
43. People often misunderstand me.
44. Some people claim I am not a very dependable person.
45. I have nightmares from time to time.
46. I feel that some of my past teachers or employers have had a grudge against me.
47. I do not like all the people I know.
48. I think I would be rather uncomfortable about going on a picnic with seeing people.
49. I often nudge the person next to me when I want to speak to him to be sure he is listening.
50. I get upset and irritated rather easily.
51. I don't think I should have to work as hard for a living as other people do.
52. I feel very uncomfortable in a group of seeing people whom I do not know well.
53. I start lots of things but do not complete many of them.
54. I worry a lot.
55. When I am at home, my table manners are not quite so good as when I am out in company.
56. I often feel tired when I get up in the morning.
57. Few people really mean the nice things they say.
58. People rarely invite me out or go out with me more than once or twice.
59. I remember unpleasant experiences for a long time.
60. Other people continually steal my ideas and take credit for them.
61. Most people do not do things for you as well as you would do them yourself.
62. I am always a little bit afraid to try something new.
63. Sometimes I gossip a little.
64. I see no reason why I should be considerate of other people.
65. Almost all blind people have many unusual abilities.
66. I am willing to try to do almost anything other people do.
67. I do not mind asking for help in locating an address or getting the right bus or street car.
68. I have been arrested more than three times.
69. I dream a lot, almost every night.

70. I am easily discouraged.
71. I get many painful headaches.
72. I feel that when people are kind to me, it is only because they are sorry for me.
73. I enjoy knowing some important people because it makes me feel important, too.
74. My heart often pounds so that it bothers me.
75. Things often go wrong for me through no fault of mine.
76. Most people will talk about you behind your back if they get the chance.
77. When I get into difficulty, it is usually someone else's fault.
78. I am always somewhat ill at ease when shaking hands with people.
79. At times I am bothered by severe itching.
80. I feel inferior to most of the people around me.
81. A lot of people have taken advantage of me.
82. Occasionally, when I do not feel well, I am cross.
83. I feel I have usually been treated fairly.
84. It makes me uncomfortable to have to ask a seeing person how I look.
85. I often have the feeling that people are talking about me.
86. I have fainted at least three times.
87. I have a lot of trouble guessing the size of a room I enter.
88. The only reason I have trouble getting a good job is because of my lack of vision.
89. I find it easy to make friends with members of the opposite sex.
90. Sometimes I do not tell the truth.
91. People should give me special consideration because of my handicap.
92. It is hard for me to forget situations which have been embarrassing.
93. There are very few people one can trust.
94. I naturally expect people to do a lot of things for me.
95. I often feel I would be better off dead.
96. I have a hard time making up my mind about things.
97. I often suspect people are making fun of me.
98. I have a good appetite.
99. Sometimes I feel like swearing.
100. I worry a good bit about my health.
101. I never forget it when someone has treated me badly.
102. I have good-natured friends and relatives.
103. I find it hard to sit still.
104. People would rather leave me behind when they go on pleasure trips and other good times.
105. I often feel stupid.
106. I hate meeting strangers.
107. Most blind people are in many ways superior to most seeing people.
108. I have a lot of friends.
109. Sometimes at elections I vote for people without knowing much about them.
110. I feel a lot different from most people.
111. I often feel like running away from my troubles if I only could.
112. I sometimes feel like doing just anything to get people to notice me.

113. I have regular duties at home which I do without assistance.
114. Most people cannot be trusted to keep a secret.
115. I am always afraid I will do something wrong.
116. A blind person should have his word accepted without having to prove it.
117. I don't mind doing something a little bit wrong if it makes people like me.
118. Usually I feel well and happy.
119. I have found ways to get out of doing most of the things I don't like.
120. I often feel so concerned about my own problems that I fail to notice people around me.
121. I feel I have to be more aggressive than most people if I am to be successful.
122. A blind person should not be criticized for what he does or says.
123. I am very upset when I knock against something I should have known was there.
124. No one really cares what happens to me.
125. It is hard for me to control my temper.
126. I have been punished for a lot of things when I did not deserve it.
127. I often feel left out of things.
128. You have to watch most people or they will cheat you.
129. I do at least one thing better than most people I know do.
130. I very much dislike trying to sell things.
131. It is fun to make things sound bigger than they are.
132. People are always just watching their chance to get something on me.
133. I find it easy to get into conversation with people I have just met.
134. By stirring up a little trouble I can usually get what I want.
135. I go to dances and other social affairs whenever I have the chance.
136. I often find myself "drumming" with my fingers.
137. I have so many problems I am justified in stretching the truth a little at times to solve them.
138. I prefer the companionship of other blind people to most seeing people.
139. It takes me a long time to get over disappointments.
140. It is easy to find real friends.
141. I usually tell people when they do something I don't like.
142. I get very excited when I argue with someone.
143. I prefer to limit my social contacts to just a few friends.
144. Life is just one disappointment after another.
145. A blind person should do things in the way most convenient to him, even though it may not be most convenient for others.
146. Nobody seems to think I have much chance of being a success.
147. I cannot be friendly with people who do not agree with me.
148. I prefer hearing or reading about things to taking an active part in them.
149. I think I should be excused from keeping promises if it proves inconcient to keep them.
150. I feel that there is no one to whom I can go if I am in trouble.

151. A lot of people are not very thoughtful about giving a handicapped person the help he deserves.
152. I have often had the feeling that I was not getting what was coming to me in life.
153. I find it very easy to express my ideas in a group.
154. Blind people should not have to meet the same standards that other people meet.
155. It usually pays to tell people frankly when you dislike something about them.
156. It takes pull to get much of anything in this world.
157. I usually have a good time at parties.
158. I like almost everything to eat.
159. I often feel as if I hate everybody.
160. I don't think there is much reward for doing right in this world.
161. I usually stay in the background at parties or social occasions.
162. I find you get along best when you don't worry much about other people's feelings.
163. I often feel it is just no use to try.
164. People expect so much of me that I am forced to make a good many excuses.
165. It is so hard to get along with other people that I prefer to work by myself.
166. At a party, I have no difficulty finding partners for dancing or games.
167. I often find it necessary to fight for what I believe.
168. I enjoy making new friends.
169. I often feel that life is hardly worth living.
170. Most people are very thoughtful and helpful to others.

B.3.2. RE-TEST INSTRUMENTS: HARDY ANXIETY SCALE (Modified)

You are to decide whether, in most cases, each of the following is true for you, or untrue, indicating your responses as instructed.

1. I often worry about losing my hearing.
2. I almost always trust the people who guide me.
3. I enjoy crowds and like being in them.
4. I am uncomfortable when I must eat with sighted persons I do not know well.
5. I am usually at ease at social get-togethers.
6. Sometimes I feel that blindness has ruined my life.
7. I am usually at ease when meeting people.
8. I feel that people often avoid shaking hands with me.
9. I often worry about my appearance.
10. I refuse to carry a cane or avoid it as often as possible although I know it would be helpful to me.
11. I am usually at ease with my sighted friends.
12. I worry about succeeding in the future.
13. I often have a nervous stomach.
14. I believe that in most cases blind people should marry other blind people.
15. I have trouble making decisions.
16. Usually I have no difficulty getting to sleep.
17. I often feel under strain because I must stay alert.
18. I worry about having to depend upon others.
19. I fear that I will never be financially secure.
20. I would say that blindness is a personal punishment.
21. I feel quite confortable about dating a sighted person.
22. Frequently my rate of breathing seems to increase when I am talking to people I do not know well.
23. When walking alone, my heart often starts to pound.
24. I have a strong tendency to agree with whatever people say.
25. My hands are frequently unsteady.
26. I often feel unwanted.
27. I get irritable rather easily.
28. My power of concentration is almost always good.
29. Noises often make me nervous.
30. I like to undertake new tasks.
31. I often feel tension in the back of my neck, especially when in unfamiliar surroundings.
32. Very small setbacks worry me.
33. Sometimes I am too tense to work effectively.
34. When with sighted persons, I often have trouble finding words to express my ideas.

35. I worry a lot about running into hanging objects.
36. In familiar surroundings, I sometimes have a feeling of being absolutely lost.
37. I often worry about the future.
38. Because I cannot see, life is a constant state of stress.
39. When I think people are watching me, I sometimes break out in an annoying sweat.
40. I enjoy new and different adventures.
41. I constantly think, and often talk, about being able to see well.
42. Most of the time, I am confident of my ability.
43. I am overly annoyed by daily frustrations.
44. I often fear getting lost.
45. Sometimes I feel that a familiar room has changed shape.
46. I enjoy being in a group.
47. I often feel uneasy about competing with sighted people.
48. I am rarely embarrassed.
49. I often worry about looking ridiculous to sighted people.
50. I would say that blind people are the masters of their own futures.

B.3.3. RE-TEST INSTRUMENTS: INTEREST TEST FOR THE VISUALLY HANDICAPPED

PART I

1. Operate an adding machine
   Write articles on hobbies

2. Sell products from door to door
   Write articles for a small newspaper

3. Run a newstand
   Grease cake pans in a bakery

4. Keep statistics on persons moving in and out of a community
   Make visits to welcome newcomers to a community

5. Cut wires to specified lengths
   Run a mimeograph machine in an office

6. Replace a worn washer in a faucet
   Make a record of merchandise ordered over the phone

7. Work with young children on athletic activities
   Run errands for a business organization

8. Develop X-ray films
   Collect installment payments from customers

9. Sell goods over the telephone
   Be a companion to an elderly person

10. Operate a ham radio
    Be the chairman of a committee

11. Teach students the use of the abacus
    Be a radio technician

12. Raise money for an organization
    Do the shopping for a sick person

13. Be chairman of a committee
    Prepare refreshments for a committee meeting

14. Sell in a small store
    Work in an office

15. Code data to be used in a computer
Measure blood pressure

16. Operate a drill press
Calculate how much metal is needed for a job

17. Operate and care for mechanical equipment
Work in a library

18. Use tools to take apart small machines
Deliver clean laundry to various floors of a hospital

19. Keep electrical equipment in good order
Keep records of expenses for a small business

20. Run a machine to label canned goods
Be a watchman in a factory

21. Study about animals and plant life
Take a course on poetry

22. Work on a production line in a factory
Compute the amount produced by each worker on the line

23. Attend a lecture on modern science
Attend a lecture on modern literature

24. Take apart and clean parking meters
Calculate the average cost of repairing parking meters

25. Take pianos apart to prepare them for tuners in a factory
Feed and groom dogs in an animal hospital

26. Keep an account of the expenses of a nursing home
Work with patients in a nursing home

27. Do mechanical work
Do work which helps other people

28. Repair machines in a laundromat
Keep a record showing how often each machine is used

29. Belong to a parent-teacher association
Belong to an association of office workers

30. Dictate letters to answer customers' questions
Help young people with problems of grooming

31. Sell advertising time for radio stations
    Fill orders in a stationery store

32. Spray machine parts with a rust preventive
    Baby-sit with young children

33. Record daily cash receipts for a store
    Handle complaints on returned merchandise

34. Work in a machine shop
    Assist a scientist doing research

35. Clean flares used to warn of road repairs
    Check orders against materials received

36. Use small tools in taking apart telephones
    Stuff envelopes and prepare material for mailing

37. Calculate the bonus for employees on piece work
    Be a dictaphone typist

38. Advertise and sell a piano tuning service
    Send out estimates of cost of piano tuning and repair

39. Estimate the cost of home repairs
    Care for sick children

40. Manage the petty cash account for an office
    Manage appointments for a busy executive

41. Study about the origin of words
    Study about social problems

42. Be a lab technician
    Be a desk sergeant at a police station

43. Count filled cartons for inventory
    Demonstrate and sell a new product

44. Estimate the cost of duplicating a long report
    Operate duplicating equipment in a large office

45. Use a machine to polish metal
    Read aloud to a sick friend

46. Hen sheets on a power sewing machine
    Sterilize test tubes in a medical laboratory

47. Put together mechanical parts
Study vocabulary

48. Keep the accounts for a small business
Type orders for a small business

49. Run a dishwashing machine in a hotel
Operate a switchboard in a hotel

50. Adjust defective meters
Sort forms for delivery to different offices

51. Treat film with chemical solutions
Make phone calls to check credit ratings

52. Operate an adding machine
Prepare tissue for analysis in a hospital laboratory

53. Sell household products
Take telephone messages on a braille typewriter

54. Assist in care of patients in a nursing home
Transcribe reports of home visits by social workers

55. Test automobile ignition systems
Write abstracts of books for a library

56. Meet a famous writer
Meet a famous social worker

57. Code data to be used in a computer
Persuade people to give money for research

58. Keep records of expenses of a small business
Write the annual report for a small business

59. Write job descriptions
Maintain a file of job descriptions

60. Study a foreign language
Study shorthand

61. Help a student write an essay
Supervise students practicing typing

62. Count out the pieces to fill orders
Read proof for a new book

63. Operate a machine to cut threads on bolts
Work in a hospital darkroom

64. Test radio tubes
Wrap packages for customers

65. Be a lab technician
Sell life insurance

66. Repair tools and machines
Test the effects of chemical formulas

67. Sell advertising space in a magazine
Write about the lives of the early pioneers

68. Be the cashier in a cafeteria
Do selling for a department store

69. Sell cookies to raise funds for an organization
Help children with selection of books in a library

70. Study arithmetic
Study business English

71. Organize a fan club for a favorite movie star
Lead a story-telling hour for children

72. Clean and repair vending machines
Sell products door-to-door

73. Test electronic equipment
Be the home visitor for a school

74. Count the calories in meals of patients on special diets
Help feed hospital patients who cannot feed themselves

75. Work in a laboratory
Work in an office

76. Be a scientist
Be a salesman

77. Sand surfaces of unfinished furniture
Sell magazine subscriptions by telephone

78. Learn a skilled trade
Take a course in selling

79. Rivet parts of motors together
Wait on customers in a florist's shop

80. Visit a director of scientific research
Read a good book

81. Write a letter
Give someone a shampoo

82. Estimate cost of auto repairs
Assist engineers planning street repairs

83. Assist a veterinarian during operations on animals
Work in a talking book library

84. Visit a school of journalism
Visit a well-known business college

PART II

85. Plan social services for blind clients
Plan camping activities for blind people

86. Repair electric motors
Grow holly for commercial use

87. Take a course in calculus
Take a course in the history of art

88. Belong to a club of professional artists
Belong to a club for journalists

89. Collect art which can be enjoyed through touch
Counsel parents of blind children

90. Be a low professor
Be a concert singer

91. Take a course in arts and crafts
Take a course in psychology

92. Estimate the expenses and income for a small farm
Raise and harvest crops

93. Study geography
Attend a class in ceramics

94. Fasten coil springs in frames to form chair seats
Raise livestock on a farm

95. Test electronic equipment
Draw and cut out letters for use on signs

96. Play an instrument with a dance band
Work on a farm

97. Be a mathematician
Raise livestock on a ranch

98. Keep records of expenses of turkey raising
Use silk screening process to make signs

99. Visit an art school
Attend a concert

100. Be a rehabilitation worker
Care for flowers in a greenhouse

101. Devise procedures to inspect machine products
Plan attractive table arrangements for a banquet

102. Keep records of books borrowed from a library
Be a farmer

103. Sing in a chorus or choir
Lead a hiking party

104. Take telephone messages in a business office
Raise poultry

105. Decorate a room
Visit hospital patients to cheer and encourage them

106. Organize a jazz library on tapes and records
Teach new farm methods

107. Set up an inventory control system
Manage a large farm

108. Take a course in ceramics
Lead an amateur musicians' group

109. Promote public relations with employers of blind people
Be a song writer

110. Write ads for electrical appliances
Arrange music for piano students

111. Learn to play a musical instrument
Learn to work with handicapped people

112. Keep football statistics
Be a lineman at football games

113. Edit technical magazines for blind scientists
Raise chinchillas for fur and breeding stocks

114. Rebuild used air conditioners for resale
Design concrete lawn ornaments

115. Advise on tax and accounting problems
Supervise the art department of a magazine

116. Type important documents
Care for trees on a large estate

117. Take samples of concrete for testing by engineers
Tune concert pianos for visiting pianists

118. Write short stories
Compose music

119. Keep track of satellites by listening to their radio signals
Be a dairy farmer

120. Polish or finish pottery
Type a letter

121. Take apart auto transmissions and clean the parts
Raise rabbits

122. Design equipment for scientific research
Condition soil with fertilizers

123. Inspect and measure machined parts
Coordinate music and sound effects in radio commercials

124. Help people on pensions to work out their budgets
Help people make their homes more attractive

125. Study different selling methods
Study new farming methods

126. Work with artistic materials
Do office work

127. Be a disc jockey
Be a Scout leader

128. Read the biography of a famous artist
Read the biography of a famous musician

129. Make metal furniture
Arrange music for a small choir

130. Read about modern art
Read about the latest filing systems

131. Study about animals and plant life
Plan an amateur musicians' evening

132. Sell insurance
Be an organist

133. Be a member of a band or orchestra
Be a member of a typing pool

134. Repair a lock
Go to a lecture on modern art

135. Assist an artist
Assist a social worker

136. Work out mathematical equations
Teach new farm methods

137. Write a new Christmas song
Develop new methods of data processing

138. Manage a small store
Be a farmer

139. Be president of a club
Be a member of a singing group

140. Work with an interior decorator
Be secretary to the president of a company

141. Be an X-ray technician
Select music to be played with radio commercials

142. Sell refrigerators
Prune shrubs and trees

143. Be a concert violinist
Be an office systems consultant

144. Be well known as a public speaker
Be well known as a textile designer

145. Belong to a group which discusses recent literary works
Belong to a farm cooperative

146. Clean and oil motors
Play a musical instrument

147. Teach crafts and handwork
Interview and audition new music students

148. Visit a literary critic
Listen to a famous music commentator

149. Write advertising commercials
Write about modern art

150. Write letters to friends
Go swimming

151. Assist in giving first aid at a hospital
Go to a fashion show

152. Be a sales manager
Teach arts and crafts

153. Replace worn parts in gas meters
Replace worn parts in a piano

154. Teach high school mathematics
Be a high school music teacher

155. Design hand crafted wooden items
Write articles about famous authors

156. Give heat therapy to sick people
Arrange flowers

157. Estimate traveling expenses for a band
Arrange music for a small orchestra

158. Belong to a book-of-the-month club
Belong to a hiking club

159. Replace broken electric switches
Make attractive floral arrangements

160. Act as guide in a museum of science
Feed animals on a farm

161. Take a course in art
Take a course in forestry

162. Operate a bottle capping machine
Care for trees and shrubs in a nursery

163. Baby-sit with young children
Grow vegetables

164. Model with clay
Go fishing

165. Give a massage
Be a truck farmer

166. Help to arrange a display of mathematical aids
Help in setting up a record display

167. Paint furniture
Feed animals on a farm

168. Collect books on mathematics and accounting
Collect stereo records

169. Raise money for political campaigns
Manage a poultry farm

170. Interview a very successful salesman
Talk with an art critic

171. Visit a famous artist
Interview a famous author

172. Go to a play
Go to a concert

173. Help to arrange a musical program
Type recorded dictation

174. Visit a famous social worker
Visit a famous orchestra conductor

175. Visit a research laboratory
Watch the rehearsal of a famous orchestra

176. Read a book
Take long walks

177. Write the harmony for a glee club
Go on an overnight camping trip

178. Teach children to model in clay
Teach short story writing

179. Visit a museum of ancient art objects
Go on a camping trip

180. Record music on tape for broadcasting stations
Be an elementary school teacher

PART III

181. Help a friend compute his income tax
Visit a famous social worker

182. Be a criminal lawyer
Teach short story writing

183. Be a physical therapist
Do public relations work

184. Replace parts on motors
Run a small business

185. Check machine parts with measuring instruments
Write policy manuals for industries

186. Plan services for clients of a social agency
Write books for children

187. Solve mechanical puzzles
Take a course in algebra

188. Be an investment consultant
Be an expert on electronics

189. Work in a sales department
Work in a social service department

190. Argue a law case in court
Be a court reporter

191. Introduce more efficient production methods in an industry
Teach travel skills to the blind

192. Make cupboards for a kitchen
Attend a lecture on recent scientific achievements

193. Be a salesman of medical equipment
Be a medical transcriptionist

194. Repair a radio
Write an ad for a new product

195. Read about early medical theories
Read about 18th Century literature

196. Build a hi-fi set for your home
Study reports on scientific advancements

197. Supervise a group of workers
Keep the production records for a group of workers

198. Edit the science section of a magazine
Edit the book review section of a magazine

199. Work with orphans and neglected children
Write about the lives of early pioneers

200. Determine defects in transmissions by sound at different speeds
Do library reference work for a lawyer

201. Study the properties of a new drug
Teach travel skills to blind people

202. Read about recent scientific discoveries
Read about new ways to keep office records

203. Work for the government as a mathematician
Teach physics in college

204. Instruct students in auto mechanics
Teach salesmanship

205. Be a chemist
     Be an office manager

206. Develop psychological tests
     Be a legal advisor for small business organizations

207. Be a consultant in the application of electronics
     Modernize procedures in an office

208. Inspect rejected machine parts to decide which may be salvaged
     Be a legal advisor for small business organizations

209. Repair electrical fixtures
     Work for a large computer firm

210. Be an arbitrator in labor management problems
     Write a newspaper column

211. Develop new selling methods
     Develop new ways to help handicapped people

212. Work out ways to improve the profits of a business
     Keep records of orders for material and supplies

213. Persuade employers to give blind clients a chance to work
     Teach homemaking to a blind person

214. Work in a scientific laboratory
     Work in a library

215. Be a computer programmer
     Sell mutual funds

216. Be a psychiatrist
     Be a specialist in inventory control for big businesses

217. Adapt woodworking tools for use in your own business
     Organize fund raising campaigns

218. Do mental arithmetic
     Help with medical research

219. Set up a budget for a social agency
     Be a secretary for an alumnae association

220. Be a sales manager
     Be an authority on office systems

221. Attend a lecture on the newest computer achievements
Follow the progress of a handicapped person in a job

222. Visit a large computer firm
Visit a large advertising agency

223. Become an important political figure
Write biographies

224. Belong to a professional association of mathematicians
Belong to a professional literary group

225. Teach homemaking to handicapped people
Plan training schedules for new employees

226. Estimate the cost of putting on a play
Direct a play

227. Be a probation officer
Type orders for a business

228. Make estimates on the cost of printing pamphlets
Be a Scout leader

229. Be an inspector of auto parts
Be a scientist

230. Work mathematical puzzles
Study the origin of words

231. Find the causes of difficult maintenance problems
Be a specialist on nutrition

232. Do scientific research
Be a rehabilitation counselor

233. Be an investment consultant
Write plays

234. Operate a small power press
Be a hospital attendant

235. Teach the use of the abacus
Teach public speaking

236. Find sources of trouble in refrigeration equipment
Check and approve requisitions for a department

237. Be a rehabilitation counselor
Write TV shows

238. Run a radio and TV repair service
Operate a telephone answering service

239. Be a magazine editor
Type medical records

240. Repair radios for a government agency
Develop a work schedule for messengers in a government agency

241. Advise businessmen on tax problems
Be a counselor to people in trouble

242. Be an electrical repairman
Be a shipping clerk

243. Supervise engineers developing electronic equipment
Edit a small newspaper

244. Design washing machines
Work out statistical procedures for a laboratory

245. Teach good health habits to people on relief
Teach English literature

246. Set up an annual budget for a corporation
Do research for an author of historical novels

247. Set up machines from blueprint dimensions
Estimate the cost of developing a new product

248. Be chairman of a membership committee
Plan recreational programs for underprivileged children

249. Raise money for charities
Be a telephone operator

250. Solve mathematical problems
Make records of court proceedings

251. Teach boys to repair automobiles
Dictate answers to customers' letters

252. Select lubricating oils to cool metal during machining operations
Be a counselor to a person in trouble

253. Write news stories for radio and TV
Keep records of expenses of a small business

254. Study hospital management
Study department store management

255. Perform calculations related to scientific research
Design scientific equipment

256. Develop job opportunities for blind people
Write articles about successful blind people

257. Read books about science
Take a course in marketing

258. Keep expenditures of a department within a budget
Plan training schedules for a large industry

259. Write lyrics for popular songs
Operate office machines

260. Keep electrical equipment in good order
Care for sick children

261. Teach English composition
Type reports

262. Study the behavior of radioactive material
Work for a social welfare agency

263. Train dogs to guide blind people
Be a receptionist in a professional office

264. Act as consultant in the application of electronics
Plan a meeting to consider problems of mental health

B.3.4. RETEST DATA: FORM

Code No.____________________

	Pretest Circle One: WB I, WB II, 1	Post-test WAIS	Post-test Circle One: WB I, WB II, 18
Verbal I.Q.	3 4 5	53 54 55	19 20 21
Information	6 7	56 57	22 23
Comprehension	8 9	58 59	24 25
Digit span	10 11	60 61	26 27
Arithmetic	12 13	62 63	28 29
Similarities	14 15	64 65	30 31
Vocabulary	16 17	66 67	32 33

	Pretest	Post-test
Emotional Factors Inventory		
Sensitivity	36 37	52 53
Somatic symptoms	38 39	54 55
Social competency	40 41	56 57
Attitudes of distrust	42 43	58 59
Feelings of inadequacy	44 45	60 61
Morale	46 47	62 63
Attitudes re: blindness	48 49	64 65
Validation	50 51	66 67
Kuder		
Mechanical	68 69	12 13
Computational	70 71	14 15
Scientific	72 73	16 17
Persuasive	74 75	18 19

76 77 78 79 80

I. D. Number

	Pretest	Post-test
Artistic	2 3	20 21
Literary	4 5	22 23
Music	6 7	24 25
Social service	8 9	26 27
Clerical	10 11	28 29
P.R.C. Interest Inventory		
Mechanical		[illegible] 31
Computational		[illegible]2 33
Scientific		34 35
Persuasive		36 37
Artistic		38 39
Literary		40 41
Musical		42 43
Social service		44 45
Clerical		46 47
Outdoor		48 49
Standard-Kohs		50 51 52

B.3.5. RETEST DATA: CODING INSTRUCTIONS

COLUMN	VARIABLE	CODE	
2	Type of Test	1 = WBI 2 = WBII 3 = WAIS	
Pretest			
3,4,5	verbal I.Q.	score	50-199
6,7	information	raw score	1- 99
8,9	comprehension	raw score	1- 99
10,11	digit span	raw score	1- 99
12,13	arithmetic	raw score	1- 99
14,15	similarities	raw score	1- 99
16,17	vocabulary	raw score	1- 99
18	Type of Test	1 = WBI 2 = WBII 3 = WAIS	
Post-Test			
19,20,21	verbal I.Q.	score	50-199
22,23	information	raw score	1- 99
24,25	comprehension	raw score	1- 99
26,27	digit span	raw score	1- 99
28,29	arithmetic	raw score	1- 99
30,31	similarities	raw score	1- 99
32,33	vocabulary	raw score	1- 99
34,35	blank		
Emotional Factors Inventory—			
Pretest			
36,37	sensitivity	raw score	1- 99
38,39	somatic symptioms	raw score	1- 99
40,41	social competency	raw score	1- 99
42,43	attitudes of distrust	raw score	1- 99
44,45	feelings of inadequacy	raw score	1- 99
46,47	morale	raw score	1- 99
48,49	attitude re: blindness	raw score	1- 99
50,51	validation		
Post-Test			
52,53	sensitivity	raw score	1- 99
54,55	somatic symptioms	raw score	1- 99

COLUMN	VARIABLE	CODE
56,57	social competency	raw score 1- 99
58,59	attitudes of distrust	raw score 1- 99
60,61	feelings of inadequacy	raw score 1- 99
62,63	morale	raw score 1- 99
64,65	attitudes re: blindness	raw score 1- 99
66,67	validation	raw score 1- 99
Kuder—		
Pretest		
68,69	mechanical	raw score 1- 99
70,71	computational	raw score 1- 99
72,73	scientific	raw score 1- 99
74,75	persuasive	raw score 1- 99
76	card no.	
77-80	subject I.D. no.	
2,3	artistic	raw score 1- 99
4,5	literary	raw score 1- 99
6,7	music	raw score 1- 99
8,9	social service	raw score 1- 99
10,11	clerical	raw score 1- 99
Post-Test		
12,13	mechanical	raw score 1- 99
14,15	computational	raw score 1- 99
16,17	scientific	raw score 1- 99
18,19	persuasive	raw score 1- 99
20,21	artistic	raw score 1- 99
22,23	literary	raw score 1- 99
24,25	music	raw score 1- 99
26,27	social service	raw score 1- 99
28,29	clerical	raw score 1- 99
P.R.C. Interest Inventory—		
Post-Test		
30,31	mechanical	raw score 1- 99
32,33	computational	raw score 1- 99
34,35	scientific	raw score 1- 99
36,37	persuasive	raw score 1- 99
38,39	artistic	raw score 1- 99
40,41	literary	raw score 1- 99
42,43	muscial	raw score 1- 99
44,45	social service	raw score 1- 99

COLUMN	VARIABLE	CODE
46,47	clerical	raw score 1- 99
48,49	outdoor	raw score 1- 99
50,51,52	stanford kohs	raw score 1-150
53,54,55	WAIS verbal I.Q.	score 50-199
56,57	information	raw score 1- 99
58,59	comprehension	raw score 1- 99
60,61	digit span	raw score 1- 99
62,63	arithmetic	raw score 1- 99
64,65	similarities	raw score 1- 99
66,69	vocabulary	raw score 1- 99
68-75	blank	
76	card no.	
77-80	subject I.D. no.	

APPENDIX C

STATISTICAL PROCEDURES

DESCRIPTIVE STATISTICS

Frequency tables, including percentages, were obtained from the print-out of PSCF Blitz (Ross, 1965). For this program, sex was used as the spread variable. Means and standard deviations were also obtained from the output of this program.

CORRELATIONS

Measures of reliability and validity for the test-retest data were obtained from CONSTAT (1969). Output from this program yields means, standard deviations, and the Pearson-Product Moment coefficient of correlation.

MULTIPLE REGRESSION

The multiple regressions reported were obtained from the Biomedical Computer Programs (Dixon, 1968, pp. 233-257). This program computes multiple linear regression equations in a stepwise manner. The variable which makes the greatest reduction in the error sum of squares is the one added to the regression equation. The correlation matrices and means and standard deviations reported in tables were also obtained from the output of this program.

APPENDIX D

MODIFICATIONS NECESSARY FOR THE SOCIOECONOMIC INDEX AND THE U. S. CENSUS INTERMEDIATE OCCUPATIONAL CLASSIFICATION LISTING

SOCIOECONOMIC INDEX FOR OCCUPATIONS

The Socioeconomic Index for Occupations developed by Otis Dudley Duncan (Reiss, 1961) was selected for classifying the occupations of subjects and their parents. This scale assigns a two digit number to each occupation as listed in the detailed classification of occupations of the U. S. Census of 1950. The index was determined on the basis of income reported for those engaged in that occupation, education required for the occupation, and a prestige factor as derived from the National Opinion Research Center materials (Reiss, 1961, pp. 109-138).

In general, the Index was found appropriate for the occupations of subjects in this study, with one possible exception. A large number of subjects reported their primary occupation as musician which is accorded a relatively high index of 52, the subjects, however, reported low incomes from this occupation. Analysis of income for each job was not included as part of this study. When such data are analyzed, other discrepancies in the scale may also be found.

Two jobs were added to the scale: data processing and computer work was arbitrarily assigned an index of 79 and sheltered workshop employment was assigned 01. These indices were determined on the basis of consensus of project personnel following review of comparable jobs.

THE U. S. CENSUS INTERMEDIATE OCCUPATIONAL CLASSIFICATION LISTING

The U. S. Census Intermediate Occupational Classification listing (U. S. Census, 1960) was selected for coding data on jobs held by subjects and their parents. In this listing each job is assigned a three digit number; there is a separate list for males and females.

In general, the assignment of a number to a job as described on the Case History Data or the Interview was a straightforward process. Certain difficulties were encountered in assigning classification numbers to jobs in certain settings which might be classified as operative or laborer. A specific job in a setting is classified as operative; a general job is usually classified as laborer. If the subject said he operated a drill press machine in a car factory, he was classified as operative; if he said he worked in a car factory and the wages were relatively low, he was classified as a laborer. For such judgments possible variation was reduced by having one research assistant code all jobs for both parents and subjects.

Some changes and additions were made to the lists because blind subjects seemed to fall into special categories which were not included. These changes were as follows:

MALES

1. Data processing and computer programming were added to 008 (dentist);
2. Rehabilitation counselors, home teachers, and school counselors were added to 021 (social welfare workers);
3. Regular teachers, whether elementary or secondary, were coded as 022; special teachers as 023;
4. School and/or agency administrators were added to 029 (officials and inspectors);
5. Massuer was added to 027 (other professional workers);
6. Vending stand operator was added to 032 (wholesale and retail trade);
7. Dictaphone operators were included with 043 (other clerical workers);
8. The following additions were made:

   162 Unemployed
   163 Sheltered shop
   164 Students

FEMALES

1. Data processing and computer programming were added to 011 (miscellaneous scientists);
2. Rehabilitation counselors, home teachers, and school counselors were added to 016 (social welfare workers);
3. Regular teachers whether elementary or secondary were coded as 017; special class teachers as 018;
4. Masseur was added to 022 (other professional workers);
5. Vending stand was added to 025 (wholesale and retail trade);
6. Dictaphone operators were included with 036 (typists);
7. The following additions were made:

   071 Housewife
   072 Unemployed
   073 Sheltered shop
   074 Students

APPENDIX E

ADDITIONAL STATISTICAL TABLES

Note: For all tables in this section, the following code is used for level of significance of F value:

* $p \leq .05$
** $p \leq .01$

TABLE E.1

INTERCORRELATION OF CRITERION VARIABLES

	Income	PCTW	SEI
Income	1.0000	0.3802	0.4683
PCTW		1.0000	0.5876
SEI			1.0000

TABLE E.2

INTERCORRELATION OF PREDICTOR VARIABLES

Variable Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	-1.0000	-0.0010	-0.0127	-0.0225	-0.0006	0.0066	0.0133	-0.0197	-0.0827	-0.0851	-0.0576	0.0517	-0.1276	-0.0711	0.0627	0.1335	-0.2429	-0.2969	-0.1366
2		1.0000	-0.0966	0.0335	-0.1054	0.0051	-0.0193	-0.0347	-0.0564	0.0952	0.2658	-0.0195	0.2584	0.0336	-0.0272	-0.0465	0.0319	0.1018	0.2250
3			1.0000	0.1633	0.9401	0.1389	0.1803	-0.0009	-0.140	0.0315	0.0894	0.0461	0.0340	-0.0477	0.0515	0.0948	0.0141	0.0007	0.0707
4				1.0000	0.1504	0.6920	0.6335	0.0077	0.1630	0.0610	0.0563	0.0647	0.1258	0.0947	-0.1057	0.2992	-0.0694	-0.0423	0.0841
5					1.0000	0.1542	0.1717	0.0030	-0.0073	0.0487	0.0619	0.0409	0.0107	-0.0219	0.0262	0.0941	-0.0010	-0.0070	0.0428
6						1.0000	0.5821	0.0200	0.1515	0.0859	0.0594	0.0635	0.1334	0.1062	-0.1138	0.2666	-0.1037	-0.0124	0.0798
7							1.0000	0.0716	0.1992	0.0613	0.0265	0.0891	0.0713	0.1220	-0.1250	0.3875	-0.1471	-0.0958	0.0361
8								1.0000	-0.0020	-0.0214	-0.1978	-0.1000	-0.1828	0.2069	-0.1928	0.1661	-0.1685	-0.1997	-0.2423
9									1.0000	-0.0292	-0.0419	0.1130	0.0650	0.0732	-0.0639	0.0191	0.0813	0.0265	0.0437
10										1.0000	0.2312	0.0434	0.0676	0.0231	-0.0329	0.0072	0.0711	0.0695	0.2035
11											1.0000	0.0446	0.4844	-0.0209	-0.0033	-0.1495	0.2077	0.3451	0.4889
12												1.0000	0.1529	-0.3197	0.3130	-0.0687	0.0970	0.0558	0.1325
13													1.0000	-0.0665	0.0682	-0.1706	0.2814	0.4253	0.5650
14														1.0000	-0.9490	0.1404	-0.1422	-0.0526	-0.0540
15															1.0000	-0.1389	0.1511	0.0618	0.0700
16																1.0000	-0.1760	-0.3149	-0.1858

Code:
1 = Sex
2 = Parent's SEI
3 = Age of onset: right eye
4 = Best corrected vision: right eye
5 = Age of onset: left eye
6 = Best corrected vision: left eye
7 = Functional vision
8 = Other disabilities
9 = Degree of counseling
10 = Money spent
11 = Level of education
12 = Number of moves since high school
13 = WB I.Q.
14 = Single
15 = Married
16 = Travel ability
17 = Income
18 = PCTW
19 = SEI

TABLE E.3

THE NON-LANGUAGE LEARNING TEST AS A PREDICTOR VARIABLE FOR THE CRITERION VARIABLES (N = 445)

Criterion Variable	Multiple		F Value
	R	RSQ	
Income	0.2459	0.0604	28.5012**
Percentage of time worked	0.1711	0.0293	13.3579**
SEI	0.1628	0.0265	12.0636**

TABLE E.4

MEAN SCORES OF SUBJECTS ON SUB-TESTS OF THE EMOTIONAL FACTORS INVENTORY

Sub-Test	Mean	Standard Deviation
Sensitivity	9.86	6.31
Somatic symptioms	4.36	5.11
Social competency	9.87	6.56
Attitudes of distrust	6.19	6.88
Feelings of inadequacy	7.25	7.02
Morale	3.87	6.69
Attitudes toward blindness	8.08	6.54
Validation	4.58	4.20

TABLE E.5

INTERCORRELATION OF SUB-TEST SCORES OF THE EMOTIONAL FACTORS INVENTORY AND THEIR CORRELATION WITH CRITERION VARIABLES

	Sensitivity	Somatic Symptoms	Social Competency	Attitudes of Distrust	Feelings of Inadequacy	Morale
Sensitivity	1.0000	0.4999	0.4629	0.4759	0.4733	0.3087
Somatic symptoms		1.0000	0.5835	0.6906	0.6573	0.5260
Social competency			1.0000	0.6471	0.7643	0.7449
Attitudes of distrust				1.0000	0.7165	0.7736
Feelings of inadequacy					1.0000	0.7810
Morale						1.0000

	Attitudes Toward Blindness	Validation	Income	PCTW	SEI
Sensitivity	0.4573	0.1143	-0.1194	-0.0715	-0.1543
Somatic symptoms	0.6082	0.5005	-0.0601	-0.0492	-0.1009
Social competency	0.6490	0.3252	-0.0842	-0.1141	-0.1771
Attitudes of distrust	0.8073	0.3047	-0.0865	-0.1010	-0.2153
Feelings of inadequacy	0.6643	0.2521	0911	-0.1268	-0.1937
Morale	0.7075	0.3064	.0591	-0.0951	-0.1613
Attitudes toward blindness	1.0000	0.3664	-0.0979	-0.1534	-0.2264
Validation		1.0000	-0.0408	-0.0189	0.0069

TABLE E.6

SUB-TEST SCORES OF EFI AS PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED
(N = 381)

Sub-Test	Multiple R	Multiple RSQ	F Value
Attitudes toward blindness	0.1537	0.0236	9.1733**
Somatic symptoms	0.1635	0.0267	1.2095
Feelings of inadequacy	0.1752	0.0307	1.5389
Morale	0.1843	0.0339	1.2633
Social competency	0.1858	0.0345	0.2246
Attitudes of distrust	0.1862	0.0347	0.0618
Validation	0.1864	0.0347	0.0165

TABLE E.7

SUB-TEST SCORES OF EFI AS PREDICTOR VARIABLES FOR INCOME
(N = 381)

Sub-Test	Multiple R	Multiple RSQ	F Value
Sensitivity	0.1194	0.0143	5.4801 *
Attitudes toward blindness	0.1289	0.0166	0.9092
Somatic symptoms	0.1317	0.0173	0.2783
Feelings of inadequacy	0.1342	0.0180	0.2593
Morale	0.1373	0.0188	0.3146
Validation	0.1409	0.0198	0.3825
Attitudes of distrust	0.1421	0.0202	0.1275
Social competency	0.1424	0.0203	0.0336

TABLE E.8

SUB-TEST SCORES OF EFI AS PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX (N = 381)

Sub-Test	Multiple R	Multiple RSQ	F Value
Attitudes toward blindness	0.2264	0.0513	20.4771**
Validation	0.2461	0.0606	3.7508*
Feelings of inadequacy	0.2531	0.0641	1.4060
Somatic symptoms	0.2567	0.0659	0.7258
Attitudes of distrust	0.2620	0.0686	1.1115
Morale	0.2705	0.0732	1.8340
Social competency	0.2738	0.0750	0.7224
Sensitivity	0.2754	0.0758	0.3407

TABLE E.9

MEAN SCORES OF SUBJECTS ON SUB-TESTS OF BELL ADJUSTMENT INVENTORY

Sub-Test	Mean	Standard Deviation
Home	7.29	6.44
Health	8.73	6.40
Emotional	9.55	6.77
Social	12.91	7.90

TABLE E.10

INTERCORRELATION OF SUB-TEST SCORES OF BELL ADJUSTMENT INVENTORY AND CORRELATION WITH CRITERION VARIABLES

	Home	Health	Emotional	Social	Income	PCTW	SEI
Home	1.0000	0.5252	0.6454	0.2261	-0.1489	-0.0605	-0.2109
Health		1.0000	0.4958	0.0610	-0.3213	-0.2279	-0.2709
Emotional			1.0000	0.5148	-0.3043	-0.1261	-0.3300
Social				1.0000	-0.0685	-0.0298	-0.1734

TABLE E.11

SUB-TEST SCORES OF BELL ADJUSTMENT INVENTORY AS PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED

(N = 56)

Sub-Test	Multiple		F Value
	R	RSQ	
Health	0.2279	0.0519	2.9586
Home	0.2383	0.0568	0.2721
Emotional	0.2458	0.0604	0.2003

TABLE E.12

SUB-TEST SCORES OF BELL ADJUSTMENT INVENTORY AS PREDICTOR VARIABLES FOR INCOME

(N = 56)

Sub-Test	Multiple		F Value
	R	RSQ	
Health	0.3213	0.1032	6.2163*
Emotional	0.3621	0.1311	1.7026
Home	0.3845	0.1479	1.0210
Social	0.3900	0.1521	0.2556

TABLE E.13

SUB-TEST SCORES OF BELL ADJUSTMENT INVENTORY AS PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX

(N = 56)

Sub-Test	Multiple		F Value
	R	RSQ	
Emotional	0.3300	0.1089	6.5979*
Health	0.3523	0.1241	0.9239
Home	0.3550	0.1260	0.1105
Social	0.3566	0.1272	0.0674

TABLE E.14

MEAN SCORES OF SUBJECTS ON SUB-TESTS OF BERNREUTER PERSONALITY SCALE

Sub-Test	Mean	Standard Deviation
B1-N	48.0600	31.8090
B2-S	37.8400	28.1348
B4-D	40.3200	35.2481

TABLE E.15

INTERCORRELATION OF SUB-TEST SCORES OF BERNREUTER PERSONALITY SCALE AND CORRELATION WITH CRITERION VARIABLES

	B1-N	B2-S	B4-D	Income	PCTW	SEI
B1-N	1.0000	-0.3684	-0.7676	-0.1926	-0.1483	-0.1956
B2-S		1.0000	0.4606	0.3795	0.1497	0.4062
B4-D			1.0000	0.1910	0.1348	0.3182

TABLE E.16

SUB-TEST SCORES OF BERNREUTER AS PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED
(N = 50)

Sub-Test	Multiple		F Value
	R	RSQ	
B2-S	0.1497	0.0224	1.1007
B1-N	0.1802	0.0325	0.4881

TABLE E.17

SUB-TEST SCORES OF BERNREUTER AS PREDICTOR VARIABLES FOR INCOME
(N = 50)

Sub-Test	Multiple		F Value
	R	RSQ	
B2-S	0.3795	0.1440	8.0743**
B1-N	0.3837	0.1472	0.1780
B4-D	0.3851	0.1483	0.0597

TABLE E.18

SUB-TEST SCORES OF BERNREUTER AS PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX
(N = 50)

Sub-Test	Multiple		F Value
	R	RSQ	
B2-S	0.4062	0.1650	9.4848**
B4-D	0.4322	0.1868	1.2602
B1-N	0.4402	0.1938	0.3981

TABLE E.19

MEAN SCORES OF SUBJECTS ON KUDER PREFERENCE RECORD

Sub-Test	Mean	Standard Deviation
Mechanical	39.80	18.54
Computation	25.39	9.57
Scientific	35.73	14.39
Persuasive	40.65	15.10
Artistic	23.98	11.62
Literary	22.76	12.18
Music	16.95	9.06
Social services	46.75	14.62
Clerical	44.61	12.82

TABLE E.20

INTERCORRELATION OF SUB-TESTS OF KUDER PREFERENCE RECORD AND THEIR CORRELATION WITH THE CRITERION VARIABLES

Variable Number	Mechanical	Computational	Scientific	Persuasive	Artistic	Literary	Music	Social Services	Clerical	Income	PCTW	SEI
1	1.0000	0.0598	0.5619	0.3129	0.3554	0.0763	-0.1108	0.0373	-0.0850	0.1102	-0.0196	-0.0946
2		1.0000	0.2446	0.1307	0.0737	0.1983	0.0195	0.0038	0.3838	0.1879	0.1146	0.1043
3			1.0000	0.2505	0.2498	0.2570	-0.1237	0.1924	-0.0582	0.1010	-0.0060	0.0917
4				1.0000	0.3002	0.3310	0.0795	0.2155	0.2873	0.0668	-0.0380	-0.0049
5					1.0000	0.2288	0.0148	0.1732	0.0578	-0.0104	-0.0606	-0.1385
6						1.0000	0.2783	0.2776	0.2585	0.1039	0.0660	0.1564
7							1.0000	0.0650	0.0091	0.0812	0.1114	0.1835
8								1.0000	0.1454	-0.0112	-0.0153	0.0443
9									1.0000	-0.0049	0.0038	0.0152

TABLE E.21

SUB-TEST SCORES OF KUDER PREFERENCE RECORD AS PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED

(N = 397)

Sub-Test	Multiple R	Multiple RSQ	F Value
Computational	0.1146	0.0131	5.2605**
Music	0.1583	0.0251	4.8189**
Artistic	0.1734	0.0301	2.0237
Persuasive	0.1787	0.0319	0.7586
Literary	0.1839	0.0338	0.7599
Clerical	0.1878	0.0353	0.5897
Mechanical	0.1886	0.0356	0.1132
Scientific	0.1905	0.0363	0.2966

TABLE E.22

SUB-TEST SCORES OF KUDER PREFERENCE RECORD AS PREDICTOR VARIABLES FOR INCOME

(N = 397)

Sub-Test	Multiple R	Multiple RSQ	F Value
Computation	0.1879	0.0353	14.4536**
Mechanical	0.2125	0.0451	4.0593
Music	0.2304	0.0531	3.3044
Clerical	0.2412	0.0582	2.1162
Artistic	0.2493	0.0622	1.6566
Literary	0.2584	0.0668	1.9295
Persuasive	0.2596	0.0674	0.2593
Social services	0.2603	0.0677	0.1446
Scientific	0.2607	0.0680	0.0949

TABLE E.23

SUB-TEST SCORES OF KUDER PREFERENCE RECORD AS PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX
(N = 397)

Sub-Test	Multiple		F Value
	R	RSQ	
Music	0.1835	0.0337	13.7681**
Artistic	0.2316	0.0536	8.3005**
Scientific	0.2793	0.0780	10.3929**
Mechanical	0.3055	0.0933	6.6186**
Literary	0.3199	0.1023	3.9235**
Computation	0.3242	0.1051	1.2130
Clerical	0.3253	0.1058	0.3181
Persuasive	0.3254	0.1059	0.0281
Social services	0.3255	0.1060	0.0279

TABLE E.24

MEAN SCORES OF SUBJECTS ON BRAINARD OCCUPATIONAL INTEREST

Variable	Mean	Standard Deviation
Commercial	59.8889	11.8625
Personal service	48.1481	11.5549
Agricultural	50.8148	16.3637
Mechanical	55.5185	12.9981
Professional	53.2593	13.7046
Artistic	53.2963	12.4617
Scientific	52.0370	13.2563

TABLE E. 25

INTERCORRELATION OF SUB-TESTS OF BRAINARD AND THEIR CORRELATION WITH THE CRITERION VARIABLES

	Commer-cial	Personal Service	Agri-cultural	Mechan-ical	Profes-sional	Artis-tic	Scien-tific	Income	PCTW	SEI
Commercial	1.0000	0.4561	-0.1394	0.0969	0.6584	0.7683	0.2018	0.2172	0.3311	0.4330
Personal service		1.0000	0.1379	0.3554	0.5127	0.5940	-0.0189	0.1961	0.0871	0.1472
Agricultural			1.0000	0.5283	-0.0284	-0.0005	0.5523	-0.0619	-0.1583	0.0181
Mechanical				1.0000	0.3100	0.1270	0.4979	0.1473	-0.0824	0.2532
Professional					1.0000	0.7328	0.3395	0.3283	0.2834	0.6142
Artistic						1.0000	0.3766	0.4237	0.2935	0.6257
Scientific							1.0000	0.2426	-0.0095	0.5343

TABLE E.26

SUB-TEST SCORES OF BRAINARD AS PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED
(N = 27)

Sub-Test	Multiple		F Value
	R	RSQ	
Commercial	0.3311	0.1096	3.0780
Agricultural	0.3499	0.1225	0.3509
Mechanical	0.3751	0.1407	0.4879
Personal service	0.3853	0.1484	0.2006
Artistic	0.4076	0.1662	0.4461
Scientific	0.4690	0.2199	1.3785
Professional	0.4715	0.2223	0.0577

TABLE E.27

SUB-TEST SCORES OF BRAINARD AS PREDICTOR VARIABLES FOR INCOME
(N = 27)

Sub-Test	Multiple		F Value
	R	RSQ	
Artistic	0.4237	0.1795	5.4705*
Commercial	0.4563	0.2082	0.8679
Agricultural	0.4673	0.2183	0.2991
Mechanical	0.5000	0.2500	0.9279
Personal service	0.5125	0.2627	0.3624
Scientific	0.5147	0.2649	0.0601

TABLE E.28

SUB-TEST SCORES OF BRAINARD AS PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX (N = 27)

Sub-Test	Multiple		F Value
	R	RSQ	
Artistic	0.6257	0.3915	16.0864**
Scientific	0.7039	0.4954	4.9417*
Agricultural	0.7364	0.5423	2.3574
Professional	0.7561	0.5716	1.5043
Personal service	0.7699	0.5928	1.0928
Mechanical	0.7804	0.6090	0.8294
Commercial	0.7900	0.6241	0.7597

TABLE E.29

MEAN SCORES OF SUBJECTS ON LEE-THORPE

Variable	Mean	Standard Deviation
Personal-social	22.3247	10.3370
Nature	21.0260	10.9916
Mechanical	21.0779	13.7347
Business	22.1688	10.0935
Artistic	21.4935	9.3592
Scientific	18.6753	6.2269
Verbal	15.0000	13.0586
Manipulative	14.4156	8.7093
Computational	9.7403	6.3420
Level of interests	62.4286	13.3933

TABLE E.30

INTERCORRELATION OF SUB-TESTS OF LEE-THORPE AND THEIR CORRELATION WITH CRITERION VARIABLES

	Personal-Social	Nature	Mechanical	Business	Artistic	Scientific	Verbal	Manipulative	Computational	Level of Interests
Personal-social	1.0000	-0.0031	0.2270	0.5177	0.3121	-0.2721	0.8385	0.6337	0.4934	-0.0499
Nature		1.0000	0.7269	-0.1795	0.3984	-0.1937	0.3373	0.3979	0.0620	-0.5564
Mechanical			1.0000	0.2401	0.5216	-0.2248	0.6009	0.6416	0.4197	-0.6602
Business				1.0000	0.0154	-0.1153	0.5734	0.5097	0.7769	-0.1482
Artistic					1.0000	-0.4273	0.5781	0.5360	0.1720	-0.3569
Scientific						1.0000	-0.2458	-0.0230	-0.2087	0.3780
Verbal							1.0000	0.8700	0.5850	-0.2960
Manipulative								1.0000	0.4301	-0.3061
Computational									1.0000	-0.3322
Level of interests										1.0000

	Income	PETW	SEI
Personal-social	0.1253	0.2750	0.2628
Nature	0.0745	0.0955	-0.0398
Mechanical	-0.0531	-0.0001	-0.1127
Business	-0.0528	-0.0101	-0.1082
Artistic	0.1230	0.1479	0.1509
Scientific	0.0628	-0.1818	0.0415
Verbal	0.0891	0.1973	0.1591
Manipulative	0.0369	0.0779	0.0252
Computational	0.0072	-0.0168	0.0138
Level of interests	0.2571	0.0900	0.3704

TABLE E.31

SUB-TEST SCORES OF LEE-THORPE AS PREDICTOR VARIABLES FOR PERCENTAGE OF TIME WORKED
(N = 17)

Sub-Test	Multiple		F Value
	R	RSQ	
Personal-social	0.2750	0.0756	6.1348*
Business	0.3276	0.1073	2.6302
Scientific	0.3442	0.1185	0.9248
Level of interests	0.3681	0.1355	1.4139
Nature	0.3952	0.1562	1.7405
Manipulative	0.4075	0.1660	0.8282
Computational	0.4200	0.1764	0.8713
Artistic	0.4364	0.1904	1.1749
Scientific	0.4364	0.1904	0.0002
Verbal	0.4379	0.1918	0.1128

TABLE E.32

SUB-TEST SCORES OF LEE-THORPE AS PREDICTOR VARIABLES FOR INCOME
(N = 17)

Sub-Test	Multiple		F Value
	R	RSQ	
Level of interests	0.2571	0.0661	5.3067*
Nature	0.3669	0.1346	5.8613*
Artistic	0.4036	0.1629	2.4665
Computational	0.4222	0.1782	1.3436
Mechanical	0.4396	0.1933	1.3231
Scientific	0.4429	0.1961	0.2477
Manipulative	0.4481	0.2008	0.4069
Personal-social	0.4693	0.2202	1.6918
Verbal	0.4776	0.2281	0.6847
Business	0.4955	0.2455	1.5244

TABLE E.33

SUB-TEST SCORES OF LEE-THORPE AS PREDICTOR VARIABLES FOR SOCIOECONOMIC INDEX (N = 17)

Sub-Test	Multiple R	Multiple RSQ	F Value
Level of interests	0.3704	0.1372	11.9235**
Artistic	0.4785	0.2290	8.8146**
Personal-social	0.5171	0.2674	3.8296*
Business	0.5483	0.3006	3.4160*
Computational	0.5911	0.3494	5.3207**
Nature	0.5962	0.3555	0.6637
Manipulative	0.6036	0.3643	0.9598
Scientific	0.6156	0.3789	1.5963

TABLE E.34

SUB-TEST SCORES OF MINNESOTA RATE OF MANIPULATION AS PREDICTOR VARIABLE FOR THE CRITERION VARIABLES (N = 437)

Criterion Variable	Sub-Test	Multiple R	Multiple RSQ	F Value
Percentage of time worked	TURN	0.1358	0.0184	8.1684**
	DISPLC	0.1404	0.0197	0.5704
Income	TURN	0.1221	0.0149	6.5795*
	DISPLC	0.1238	0.0153	0.1897
SEI	DISPLC	0.0892	0.0080	3.4885
	TURN	0.0897	0.0080	0.0383

TABLE E.35

SUB-TEST SCORES OF PENNSYLVANIA BI-MANUAL AS PREDICTOR VARIABLES FOR THE CRITERION VARIABLES
(N = 466)

Criterion Variable	Sub-Test	Multiple R	Multiple RSQ	F Value
Income	ASSEMB	0.1688	0.0285	13.6081**
	DISASS	0.2082	0.0433	7.1863**
Percentage of time worked	ASSEMB	0.1862	0.0347	16.6612**
	DISASS	0.2188	0.0479	6.4194**
SEI	ASSEMB	0.1251	0.0157	7.3783**
	DISASS	0.1427	0.0204	2.2293

TABLE E.36

CRAWFORD SMALL PARTS DEXTERITY TEST AS A PREDICTOR VARIABLE FOR THE CRITERION VARIABLES
(N = 388)

Criterion Variable	Multiple R	Multiple RSQ	F Value
Income	0.1055	0.0111	4.3428*
Percentage of time worked	0.0778	0.0060	2.3491
SEI	0.0335	0.0011	0.4335

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